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SOME FISH AND SOME FISHING



TARPON, 187 POUNDS
St. Lucie River, Florida, January 23

SOME FISH
AND
SOME FISHING

BY
FRANK GRAY GRISWOLD

WITH ILLUSTRATIONS
FROM PHOTOGRAPHS

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THERE IS A PLEASING RHYME WHICH TELLS OF AN
ANGLER, AT THE END OF AN EVENTFUL DAY WHO:

"TOOK WITH HIGH ERECTED COMB
THE FISH, OR ELSE THE STORY HOME
AND COOKED IT."

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SOME FISH AND SOME FISHING

SEA FISHING

WHEN I VISIT NEW WATERS, AND FIND THE FISHING POOR AND AM INFORMED THAT IT IS NOT AS GOOD AS IT USED TO BE, I AM REMINDED OF THE IRISHMAN WHO SAID TO HIS PAL: "PAT, IRELAND IS NOT THE COUNTRY IT USED TO WAS."

"BEGORRA, NO," REPLIED PAT; "AND SHE NIVER WAS."

I

SEA FISHING

KNOWING that the period of a man's hard-riding days is limited, I prepared for the inevitable some years since by making a pastime of sea-fishing. I have fished for most fish that swim in the American waters, both in the Atlantic and in the Pacific. The fish that interests me the most is the tarpon (*Megalops atlanticus*). I have fished for the tarpon in Florida waters every month in the year excepting in midsummer, all along the Gulf of Mexico as far as Aransas Pass, and in the Panuco River at Tampico, Mexico. I have also fished around the coast of Cuba and the Isle of Pines.

The tarpon is a most interesting fish to study. Although a bottom-feeder, he is often seen rolling along on the surface of

the water very much as a porpoise swims. He is not afraid of man or boat, and even the small fish in the rivers will not increase their speed as you pass them by. In the rivers, when not in motion, they will lie on the bottom, coming to the surface from time to time for a mouthful of air and then retiring to their resting-place, after which the air-bubbles will rise to the surface for some time. It is this action that makes the natives insist that these fish have lungs and use them for breathing. Then, again, they will lie on the bottom for hours, as other fish do, with very little or no motion of the fins. I once caught a very small baby tarpon in a gill-net, and kept him alive in a tub for hours. He did not act as other fish do in like circumstances, but allowed me to stroke him gently without attempting to move. From time to time he would rise to the surface, as the large fish do in the rivers, then go to the bottom of the tub again, and in a moment

SEA FISHING

the bubbles would slowly issue from his mouth. He kept this up all day. Tarpon feed on small school-fish and on mullet, yet their long underjaw denotes that they are bottom-feeders. They have no teeth, and the hard mouth, with which they crush their food before swallowing it, is a further proof that they enjoy a diet of crab and the like.

According to Hallock, the River Crow Indians have the following legend:

"Many creations ago, when the salt water covered the surface of the plains and the Rocky Mountain Range formed the shoreline of the primitive continent—long before any land animals existed except reptiles—the Great Spirit had constituted the tarpon-fish the great Silver King, and appointed him to be the guardian of the undiscovered vast ore-beds of silver which fill the mountain crags. He clothed him with silver armor-plates and made him ruler over all the anadromous fishes which came up out

of the salt-water estuaries into the fresh-water limpid streams to spawn. Once in every century the Silver King was permitted to bathe in an electro-thermal medicine spring of liquid silver, and thus preserved and renewed the brightness of his armor. The silver springs flowed from the hidden ore-beds of the inner mountains. Finally the growth of the continent southward drove the ocean before it and thus the tarpon — the Silver King — was forced gradually into the Gulf of Mexico, where he now chiefly inhabits

“He has gone from his former haunts just like the buffalo which once covered the prairies, and the great silver mines, being thus left unprotected and exposed, soon became revealed to the knowledge and cupidity of men who are now swarming more than ever into the country, bringing their picks and crushers and driving off the game. But the Great Spirit took pity on the Silver King because he was thus deprived

of his ward and heritage and because he could no more renew his armor by bathing in the silver spring; and so he made him the everlasting coat of silver mail, which never fades nor wears off, either in the water or out of it. It will neither dim nor tarnish. Any Indian brave who wears the scales of the tarpon on his person will possess a medicine which will ever be to him a talisman of good fortune, both in this world and the spirit land to come. Plenty will surround him long after the buffalo have ceased to run."

The first tarpon was taken by rod and reel by William H. Wood of New York on April 18, 1885, bottom-fishing, and it was not until the invention of the Van Vleck tarpon trolling-hook that the method of fishing for them in this manner became a success; for before that, out of ten fish you would "hang" you might with luck save one. I say invention of Van Vleck hook, yet the very same shape of hook can be seen in the

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Naples Museum, found in Pompeii (which was destroyed A.D. 79) and was probably used for trolling for tuna.

II

TARPON FISHING

II

TARPON FISHING

IT does not seem to be generally known that tarpon frequent the rivers of Cuba, though they are to be found at all seasons of the year in a few of the rivers. I say a few of the rivers, for, having searched for them in about twenty, I have found them in only five—in the “Zara” on the north coast, in the Jatibonico, Rio Negro, and Damuji on the south coast, and in the Los Angeles River on the Isle of Pines. Most of the rivers in Cuba are fed from swamps, and their waters are dark and in a muddy condition, which does not seem to appeal to the tarpon. The rivers I speak of are fairly clear, and the Rio Negro is as clear as crystal. The fish trade up and down the rivers on the tide, and are very certain to leave for the open sea just before a northerly storm. You find them in schools of twenty

SOME FISH AND SOME FISHING

or more fish of an average weight. The small fish seem to remain for several years in brackish water before going to sea. There are numbers weighing from three to five pounds, and beautiful little fish they are to look at and delightful to take on light tackle.

To fish in Cuba you must have a vessel adapted to the waters. She must have power as well as sail and must not draw more than four feet. The rivers are deep, except over the bars at the mouth, where they are very shoal. The tarpon do not seem to go above the tide into fresh water. The limit of the mangrove growth, which does not grow along fresh water, is the limit of the fish. The rivers are lined with mangrove trees and royal palms, and the current is never rapid, so that the waters are ideal for fishing. The fish will average about one hundred pounds, but now and then you will meet a school of giants.

I have cruised from Nuevitas Bay on the north coast around the western end, of the

TARPON FISHING

island to Cienfuegos on the south and have tried most of the rivers that looked promising for sport. I have always fished there in the month of February, and have never failed to find tarpon. In four winters, during a few days' fishing each season, I have played almost two hundred tarpon. I say "played," as I never kill a tarpon unless he is hooked in such a manner that he cannot be set free. I believe that it takes many years for them to grow to maturity, and it seems wicked to destroy such game fish. The natives in Cuba are glad to have them, as they eat them fresh and salted.

The fishing in Cuba in winter is charming, the climate being perfect, with no flies or insects of any kind; but the trip there and back for a small vessel is not easily to be forgotten. With a northerly wind—and it always seems to blow from that quarter—the Gulf Stream is the roughest bit of water that I have ever navigated, and the run across from Justias Key to Key West is a

nightmare. There are other fish, such as snapper, jackfish, grouper, kingfish, Spanish mackerel, and barracouta, to be found off the coast and in the rivers, and I have seen bonefish for sale in the market. Sharks of many varieties and of the largest kind abound.

Winter fishing for tarpon is river fishing, and, in my opinion, is the most interesting and sportsmanlike manner of fishing for the grandest of sea-fish.

Some ten years ago I was cruising in the Indian River, Florida, in a house-boat, and found the St. Lucie River full of tarpon. The good people who live in the neighborhood of Sewall's Point had cut the beach opposite where the St. Lucie empties into the Indian River, for the purpose of deepening the latter and providing a port that would help them to develop that part of Florida. It did not have quite the desired effect, for Gilbert's Bar at the mouth of the inlet is not a pleasant harbor to make, and the

TARPON FISHING

Indian River now has less water at that point than it had before. By letting in the salt water, they changed the character of the lovely St. Lucie River; for the brackish water killed all the vines that hung in garlands from the trees. It also changed the character of the fish to be found there. Mullet in great schools came into the river on the flood-tides, and were to be found ten miles up the North Branch, and tarpon followed the mullet in large numbers. I saw more tarpon that winter, and larger ones, than I have seen in the ten years since. It was that winter that I acquired the taste for river fishing.

The tarpon that come to the rivers, bayous, and inlets of our coast in April and May in great numbers leave in the autumn, supposedly for the warmer waters of the Gulf Stream; but some fish remain in the deep rivers of the east coast of Florida all winter. They do not show on cold days; but if the water is sixty-eight degrees, or

warmer, you can see them, and can fish for them with some hope of success.

It gives me more satisfaction to kill one tarpon in January than ten in the month of May, when they are plentiful. I troll from a rowboat with a live silver mullet hooked through the head. If the hook is properly placed and the mullet gently handled, it will live for hours. I have fished in this manner for several winters, killing a number of fish. The largest two were 187 pounds, caught on Jan. 26, and 165 pounds, on Feb. 23.

The moment the fish strikes and feels the hook, he jumps first to one side of the river and then to the other, for the rivers are not wide, and then comes straight toward your boat, fighting all the time. It is then that you generally lose him, for he will jump half out of the water beside the boat when your line is straight up and down. It must be a well-hooked fish that does not then shake the hook free.



TARPON TAKEN IN THE RIO NEGRO, CUBA
Weight, 130 pounds

TARPON FISHING

One winter I sailed from Key West for Cuban waters and cruised along the northern coast of Cuba, looking for tarpon. I found a lovely river, called the Zaraguanacan, a tiny river for such a long name, but full of tarpon of all sizes. In places it is very narrow, and its shores are thickly covered with mangroves. The water is deep, and the fish work up and down the river on the tide. While there I jumped fifty-two tarpon, and saved only nine. I was not sorry to lose any of the fish that I had played, for they are so game that it is always painful to gaff them. In this case it was most amusing to lose them, for the third jump would generally land them high up in the overhanging branches of the mangroves, through which they would crash into the deep waters below, leaving my tackle entangled in the bushes.

The result of river fishing does not mean a large bag. It is quick work, for you must not give the fish any slack, a difficult thing to avoid, as you have no tide in your favor,

as in pass fishing, to keep your line taut. The gentle current of the Southern rivers is of little assistance, even if you are fortunate enough to jump your fish when trolling against it. The rivers are deep, and the waters are dyed by the cypress roots and fringed with white lilies. The banks are lined with cabbage-palms and deciduous trees, which in January are just budding, spring then beginning along these lovely rivers so little known to tourists in Florida.

I do most of my fishing with the assistance of a launch. With the advent of the automobile, a new way of seeing the world was discovered for the tourist, and years of keen pleasure offered to those who love travel. The coming of the motor-boat has done the same for fishing.

I remember being surprised some years ago at Captiva Pass by the complaints made about one fisherman, because, cruising about in a launch near where we were fishing, he frightened the fish with his propeller.

TARPON FISHING

and so drove them out to sea. I did not believe it at the time, and I have since had many opportunities to prove that, on the contrary, the disturbance work up the fish and encourage them to take notice and strike. There is a pool in New River which motor-boats pass through a hundred times a day, and the tarpon remain there all the time if the water is not too sweet; in this case they go to sea, and return when the rain-water has run out. At Catalina, Calif., you almost always fish in launches. You can cover much more space, your bait trolls more steadily, and you have not the feeling that the man at the oars is rowing his heart out.

The best boat is a large rowboat with one and one-half horse-power gasoline-spark engine. The boat must be light, for your boatman must have his oars ready to assist you in playing your fish when it is hooked. You need but little power, for you should not travel faster than a man can row, and

most one-cylinder engines do not slow down graciously.

I have fished in this manner for the last few years, believing the old way of trolling to be quite out of date. In a few seasons' fishing I have taken tuna, tarpon, hundreds of kingfish, grouper, barracouta, muttonfish, cavalli, pompojacks, ladyfish, bonito, bluefish, and Spanish mackerel.

In tarpon-fishing I usually am towed in a rowboat, for the reason that my launch travels more slowly with the weight astern. The boatman casts off when I tell him to, and the launch goes on out of the way. I have done this with good success not only in rivers, but also in the open sea and along tide-rifts in the passes.

This method of fishing has, however, one great drawback: if you are trolling with a live mullet, it soon dies, and revolves like a pinwheel. Most cut baits will do the same, as spinners will also; and no number of swivels or "anti-kinkers" will prevent your

TARPON FISHING

line from being ruined in short order. This gave me much trouble for some time, but I heard of a new improved fishing-gear, or "skittering device," patented by Albert W. Wilson of San Francisco, for striped-bass fishing, which is in general use on the Pacific coast for that purpose. This spoon I consider the most wonderful fishing invention of modern times. It "swims" erratically, swerves from side to side, and yet never revolves, so that your line does not kink in the least. In addition to this, it attracts all kinds of sea-fish. Tarpon, kingfish, grouper, and even sharks seem to take to it most kindly.

These spoons are made in different sizes and are very nicely balanced, as they must be, or they would trail along on the surface of the water. The steady movement of a motor-boat just suits them.

The curse of sea-fishing is the difficulty of getting fresh bait. I have been for days in Florida or off the Cuban coast with no

bait to be had. But that time has gone by, thanks to the "Skittering Wilson," and motor-boat fishing has been made possible.

III

TUNA FISHING

fish reported, but they were lost, one of them after seventeen hours of struggle.

They tell me that there is a difference in tuna; that some are much stronger than others, which I do not doubt. My only experience has been with fourteen landed at Catalina and one lost at St. Ann's Bay, Cape Breton Island. The latter I lost after thirty minutes, and was greatly relieved; for he looked to be over eight hundred pounds in weight, and was too strong for me and my tackle. From my experience at Catalina, I believe that any tuna up to two hundred pounds in weight should be landed in thirty minutes; but the tackle must be strong and sound, so that it causes you no thought, and you must have "hands." The fascination of heavy fishing is the give and take between man and fish, the knowledge of what your tackle will stand, and the power that it gives you to convince the fish of the fact that you are his master. This is done by "hands," just as riding a horse properly depends upon

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"hands." No man can ride well who has not "hands," and so it is with strong fishing. Brakes on reels do not help you, or they help you too much. They make you too strong, and your tackle suffers. Fish are no longer killed; they are murdered. It requires but little skill to fish with a reel brake, and it is the cause of the loss of most of the tuna hooked at Catalina.

My advice to a novice who wishes to land a tuna is: fish with a stiff rod and a sound line, keep your rod up, your left thumb on the reel, and do not let up on the fish. Do not use the brake when trolling. When the fish strikes, put all the strain on your tackle that it will stand, and stop your fish with thumb-pressure and the bend of the rod only. The farther the fish runs, the more quickly you will kill him, as it is very exhausting to a fish to travel fast under such a strain. If the drag is on, he will stop sooner; but being still fresh, he will try other methods which are more exhausting to you than to

him. At the end of his first run is the moment to fight him to a finish. If he gets his second wind, he will be stronger than you. In this manner I killed a tuna on my last trip weighing 156½ pounds in twelve minutes.

It is not easy to compare the two kinds of fishing, or to say which fish is more game, the tarpon or the tuna, for they act very differently. It is safe to say that they are imbued with quite different ideas when first hooked. The tarpon has no fear of boat or fisherman; his only idea is to shake the hook loose, and to do this he jumps out of the water, and will do so several times if you fight him hard. The harder you fight him, the more he jumps and the quicker he comes to gaff. I have never had a tarpon take more than 250 feet of line, and that in a tideway. I have heard of fish that have taken more, but am only telling of my own experience. The tuna, on the contrary, is off in a wild rush the moment he feels the hook, and I



TUNA, 154½ POUNDS
Time, 12 minutes

TUNA FISHING

have had 650 feet of line taken from me before I could stop my fish. He then dwells, perhaps sounds, then runs again, perhaps twice, then sounds as a rule. From that time on it is a question of "pumping" your fish up to the boat, if you wish to kill the fish and not to allow him to commit suicide by towing you about. With proper tackle, either fish should be killed and gaffed within thirty minutes, barring accidents. If you are fortunate enough to hook your tuna in the upper jaw and hold him hard during his first run, he comes to the surface virtually drowned, and if you are quick, it takes only a few minutes to bring him to gaff.

The method of fishing for tuna is to troll from a power-launch or from a rowboat astern of such a launch, with a flying-fish for bait. The tuna follows the bait, strikes at the head, and turns as he strikes, so that he is generally hooked in the corner of the mouth, and makes his run with his mouth closed. To kill him in such cases you must

tire him out. The water is very deep off Catalina—hundreds of feet deep. When your fish sounds, if you wait a few moments, he will discover that the pressure of the water is more comfortable nearer the surface. The great depth of water is an advantage as well as a discomfort to the fish.

I proved to my own satisfaction years since that every tarpon should be brought to gaff within thirty minutes, and went to Catalina Island to see if the same could be done with the tuna, with the following result:

June 5: tuna, 150 pounds, 2 hours, 20 minutes.

June 6: tuna, 130 pounds, 1 hour, 17 minutes.

June 8: tuna, 102 pounds, 19 minutes.

June 9: tuna, 123 pounds, 19 minutes; tuna, 104 pounds, 45 minutes.

June 10: tuna, 118 pounds, 27 minutes; tuna, 88 pounds, 20 minutes; tuna, 100 pounds, 17 minutes.

June 11: tuna, 99 pounds, 15 minutes; tuna, 103 pounds, 14 minutes; tuna, 62 pounds, 8 minutes; tuna, 109 pounds, 9 minutes; tuna, 118 pounds, 20 minutes.

Total: thirteen fish, 1411 pounds.

I fought my first fish with a rod that had

TUNA FISHING

a flaw in it, and the reel was spread by the second fish, yet I averaged about thirty minutes on the thirteen, and five of them I killed in one day in six hours' fishing. I used a stout rod, a Vom Hofe Star reel, holding eight hundred feet of No. 22 Hall line, and Van Vleck tarpon trolling-hook with swivel and piano-wire snood.

The leaping tuna do not jump after being hooked, but do when chasing schools of flying-fish, hence the epithet.

Now, to answer the question, Which is the more game, the fish that stands and fights, the tarpon; or the tuna, the fish that runs away, then holds on and fights to the last moment? I say the tarpon. Yet there is no sea-fishing sensation equal to the first grand run of a hooked tuna, and he is a harder fish to kill than the tarpon.

I took my fishing-tackle with me to Sicily one April, looking for sport with tuna (the famous tunny-fish of the ancients), but found I was too early, as the fish do not

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appear in those waters until the early
summer.

Permanent tuna fisheries and fish factories exist at Syracuse and Palermo and at other places along the coast. In setting the nets, advantage is taken of a strange fact. The fish are known to travel in certain directions along the coast, and when they meet with an obstruction, they always turn to the left. I was told that the fishermen in Italy, therefore, believe that the fish see only out of the right eye. A strong, deep net is anchored offshore and secured to kedges. It is a trap-net, open toward the sea, and the inner chamber has a strong floor. At Palermo there is a stone tower on shore from which a watchman watches the nets and announces with a bell the arrival of a school of tuna. When the fish are intercepted by the nets, they keep turning to the left, until they arrive in the *camera di morte*, or death-chamber. The watchman having announced the arrival of the fish, and the



Scale 1/1000

A TUNA NET, SICILY



TUNA NETS, SICILY

TUNA FISHING

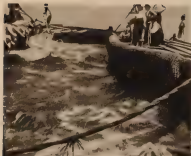
fishermen, armed with strong gaffs, having appeared in boats, the inner gate is closed. After hauling in the slack of the stout net, the slaughter begins. I was told the fishing at Palermo some years would net \$10,000, notwithstanding that the installation of the nets cost a like amount, and the yearly rental of twenty miles of shore water was \$4,000. The fish run up to 500 pounds in weight, but the majority are much smaller. It is said that a 100-pound tuna is worth 100 francs (\$20) at the factory, which seems excessive, though every part of the fish has a commercial value. The meat is salted and canned, and is a staple article of food. The trade is protected, no tunny products being allowed to pass the customs into Italy.

Along the southern and western coasts of Spain and the western coast of France the tuna are caught by fleets of small seaworthy vessels with strong lines rigged on outrigger poles. Bait is used, with large, strong hooks.

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It is a strange fact that although these fish are found in great numbers in the warm waters of the Mediterranean, they are seldom seen along our Atlantic coast south of Cape Cod. They have been reported off the coast of New Jersey and in the waters between Block Island and Montauk Point. The horse-mackerel is still found between Cape Cod and Labrador, and at one time is said to have been often met with. The schools of herring, mackerel, and menhaden have either disappeared, or remain farther offshore than in former years, and the horse-mackerel, being a good feeder, must follow the smaller fish.

I had read that the tuna were very plentiful along the western coast of Newfoundland. I cruised from Port-aux-Basques to the beautiful Humber Sound, Bay of Islands, and back, in the summer of 1911, without seeing a single fish, nor could I obtain any information concerning them. I have found the tuna on two visits to St. Ann's Bay, Cape



HAULING THE NETS, SICILY



GAFFING THE FISH, SICILY

Camera di morte

TUNA FISHING

Breton Island, but found it very difficult to get to them; for they seem to come into the bay on the tide, turn, and go out to sea again, and rarely dwell. St. Ann's Bay is open to the northeast, and it is seldom that the sea is in such condition that it is safe to fish. Then, again, it is almost impossible to obtain bait. The waters seem bare of fish of any kind, which must account for the short visits of the tuna, for they will not remain where there is no food.

Mr. J. K. L. Ross, who passes his summers at St. Ann's Bay, is the pioneer of the tuna fishing there. He has had great sport during the last four seasons, having been fast to more than fifty of these giant fish during that time. He was unsuccessful until the twenty-eighth of August, 1911, when he succeeded in landing, after a fight lasting four hours and forty-five minutes, a fish eight feet ten inches long, with a girth of six feet three inches, and weighing 680 pounds on the scales at Sydney twenty-four

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hours later. It was a wonderful and well-deserved victory after all his trouble and his never-ending hospitality and kindness to visiting fishermen.

The fish in those waters are of great size. I saw one near at hand which, I think, must have weighed at least 1,500 pounds.

IV

SWORDFISHING IN THE PACIFIC

I ROAM THE SEAS TO FIGHT THE WHALE,
WITH SWORD I THRUST, I STRIKE WITH TAIL,
BUT WHEN I'M HOOKED I SOUND AND FIGHT
THE LUCKLESS FISHERMAN HALF THE NIGHT.

IV

SWORDFISHING IN THE PACIFIC

THE swordfish (*Xiphias gladius*) of the Pacific is the same fish that is so well known in the Atlantic Ocean. Several thousand of these fish are captured every season during July and August along our coast from Block Island to Halifax, N. S.

The average weight of the swordfish shipped to the Boston market is about 360 pounds, and there is a legend among the fishermen that a fish was once brought in that weighed 750 pounds.

The U. S. Fisheries Commission have never been able to find out where these fish breed. No very small fish have ever been taken along our coast although the Commission did capture a 25 pounder on one occasion. It is known that the fish breed in the Mediterranean, but as they appear there

at the same season of the year that they do here this would hardly apply to our fish.

These fish are found in midsummer swimming leisurely along on top of the water apparently sunning themselves. The boatmen steal upon them in power-boats. A fisherman is poised on the bowsprit or bow of the boat supported by a so-called pulpit of iron, and when just over the fish harpoons him. The steel end of the harpoon is driven well home and to it is attached a long strong rope which is coiled in a tub so that it will run free. To the end of the rope a five gallon keg painted white is fastened. This keg usually bears its owner's or the boat's name.

The harpooned fish always go to windward, and it used to be quite an undertaking to follow them in the days when sailpower had to be depended on, but the motor-boat has made it easy work.

The swordfish soon tires after sounding deep a few times, and when the tired fish

SWORDFISHING IN THE PACIFIC

comes to the surface he is lanced and hauled on board.

Great numbers of fish are taken in this manner every season. I heard of one boat that after a fourteen days' trip divided \$5,000 among a crew of five fishermen. The swordfish bring fifteen cents a pound in the Boston market and are excellent eating.

Swordfishing is not carried on as a profession in the Pacific nor is the fish to be found in the market, but swordfishing with a rod and reel has become a sport, and an arduous one, for the members of the Tuna Club at Avalon.

The first fish was taken in 1913, since which time twenty fish have been brought in and weighed. The heaviest qualified fish weighed 465 pounds and the smallest 130 pounds.

Regulation Tuna Club tackle is used—a sixteen-ounce tip five feet or more long and 1,200 feet or more of 24-thread line. The leader is made of strong piano wire doubled.

Two six-foot wires are strung from the hook to a one-inch ring and two wires of the same length join this ring to another one onto which the line is bent. The rings are for the glove-handed boatman to hold on to when he gaffs the fish. Some fishermen use a chain on the hook and a swivel in place of the middle ring but they are not quite trustworthy.

Mr. Boschen, the strongest and most skillful fisherman in the Tuna Club, has fished for swordfish daily from June 1st to October for three years. He has fought some forty odd fish and has landed but eight. He has battled with them for five, eight, and even eleven hours and half through the night. He tells me they really do not wake up until it grows dark. He fought one fish for eleven hours. The fish sounded forty-eight times and had to be pumped up and led the launch twenty-nine miles before he was lost owing to the steel hook having cut through the brass chain attached to it.



MR. JOHN V. ELIOT AND
SWORDFISH
5 hours and 7 minutes

SWORDFISHING IN THE PACIFIC

Mr. Boschen thinks they are the greatest fish that swim. They certainly are the most difficult to kill for they have a strength and vitality that are beyond belief. They fight as a heavyweight fighter boxes, for their every move is deliberate and well thought out. The marlin fights quickly and is all over the place; not so the swordfish. He moves as a rule slowly but with great strength and deliberation, yet he is known to be the fastest swimmer of the seas. Now and then, it is said, a crazy fish is hooked and acts quite differently.

The swordfish do not begin to fight until after the first or second hour when they seem to wake up, and a fish has been known to fight for an hour after he had the gaff in him and before he could be securely roped. Once you have a rope around the fish's tail he is safely captured but not until then.

There were seven swordfish brought in during the eighteen days that I was at Avalon and four of them had been foul-

hooked. A 404 pound fish was hooked in the anal fin, the hook having passed from his mouth through his gills in some mysterious manner and fastened in the anal fin. The wire had cut through the gills and after a five hours' fight the fish had bled to death and sank. He had to be handed up as the rod could not lift the weight. It took three men forty minutes to bring him to the surface tail first. His tail was then roped and he was towed twelve miles to Avalon.

Two fish were brought in wrapped up in the wire leader which had caught the hook and held the fish as in a vise. In both cases the bait was still on the hook.

The swordfish, when he sees the bait, sinks and the first thing he does is to hit the bait a hard blow with his sword. He seems to do this at times from pure viciousness, for he does not always take the bait after hitting it but moves off. He seems to be a poor batsman for he often becomes foul hooked

SWORDFISHING IN THE PACIFIC

by striking the wire instead of the bait; the wire enwraps his sword and in his struggles he becomes foul hooked.

One fish had been hooked in the anal fin and the wire had been across his mouth which was badly lacerated. If foul hooked in the body and not in the fins the hook usually pulls out as they are a tender-skinned fish.

It is very hard work, the hardest fishing undertaking that I ever indulged in, and I do not advise anyone to undertake it who is not young and strong and who does not weigh at least 180 pounds, yet there are moments in swordfishing that are intensely interesting even for a lightweight.

The Farnum brothers of moving picture fame, both strong men, fought a broadbill for eleven hours. One of them wore a harness made of webbing. The harness broke and he not only lost the fish, but the rod, line, and reel as well, for the fish took them with him. One of the brothers succeeded

later in capturing a fish much to everyone's satisfaction.

When I arrived at Santa Catalina Island I found that the kind secretary of the Tuna Club had engaged the 28-foot launch "Shorty" for me to fish in and told me that there were no marlin or tuna about, which was a great disappointment.

The boatman, "Shorty" by nickname, hailed originally from Harlem, and as we were both Gothamites we understood one another at once for we spoke the same language. The first mate was Pard, "Shorty's" dog. Pard is a skilled fisherman and would always let us know when he saw a swordfish.

The Island of Santa Catalina is ever a joy to look at. Its bold beauty of outline and picturesque rocks, its sunny cañons which appear from time to time as you coast along its shores, and the fog-banks that overhang the mountains in the early mornings always impress one greatly.

SWORDFISHING IN THE PACIFIC

If you climb the hills and look down on the sea the picture is wonderful. You can see miles of coast line and the extraordinary colour of the sea can be observed, varying as it does from the palest and most impalpable of greens immediately under the shore to a deeper emerald beyond, and then as far as the eye can reach it is blue, the incomparable deep blue of the warm Pacific Ocean.

We started out at 8 A.M. the first day after my arrival at Avalon. I told "Shorty" to keep in shore and to zigzag along, one mile off shore then back to the edge of the kelp, for I wanted a marlin and they are supposed to be found in shore. The fog overhung the island and I could not see where we were going nor did I pay much attention for it was a joy to be in a boat on a smooth sea after four days of railroad travel.

We had been fishing about two hours when "Shorty" said: "Here is a broadbill and he is a buster; will you try him?" The

local names for the swordfish are broadbill or flatbill to distinguish him from the marlin whose bill is round. I found that we were four miles off shore and that "Shorty" had been instructed to put me on to a big swordfish, and he did it with a vengeance.

I looked over my shoulder and saw the dorsal fin of a large fish moving slowly near by and his tail, which was partly above the surface, seemed to be at least six feet from the dorsal fin. He was moving through the water leaving no wake behind him such as a shark does, and making no use of his tail; this he is enabled to do owing to the great power of his pectoral fins.

The launch was slowed down. I had a flying-fish on the hook and let out 150 feet of line. The boatman now tried to manœuvre the boat in such a manner that the bait would swing in front of and near the fish. This was difficult as the swordfish was turning the same way we were, seeming unwilling to cross our wake.

SWORDFISHING IN THE PACIFIC

At last he saw the bait and as the fish sank the launch was stopped. He disappeared without a motion or the least flirt of the tail. The balance of these fish is perfection.

"Shorty" said: "He is now going down to give it the once over; turn everything loose and give him plenty of line." The line was jarred as the fish struck the bait a hard blow and then it began to run out slowly. I gave him about two hundred feet and when the line became taut struck hard.

I had hooked my first swordfish!

He made a run of about two hundred yards and then sounded about six hundred feet, stayed down a few moments and allowed himself to be pumped up. He then came up to the surface and thrashed about in a circle, sounded again, was pumped up again. He did this several times. Within the first hour I had the double line, which was doubled back fifteen feet, on the reel three times and the wire leader was above

the surface. We could see the fish plainly and "Shorty" said he would weigh over five hundred pounds, but fish always look big under those circumstances and I was too busy to estimate weights. One thing I had discovered: he was too heavy for me, for in some of his sudden plunges he had nearly pulled me overboard. For the first time in my life I wished I weighed two hundred instead of one hundred and thirty pounds.

Suddenly the fish made a dive under the boat. I turned everything loose and shoved the rod six feet into the sea. The fish came to the surface on the other side of the boat as "Shorty" started the launch ahead and the line cleared.

This woke Señor Espada up and he raised Cain for two hours. He tried every fish trick known and jumped clear of the surface so that I could not help getting a good look at him. He was a very big fish; his sword looked five feet long to me, but everything

SWORDFISHING IN THE PACIFIC

in me had been stretched by this time, even my eyesight and imagination.

It had been a cold foggy morning. I had on two sweaters. First one then the other had been peeled off. Then my collar and my hat had been thrown aside. "Shorty" remarked about this time that if I kept on I would be naked before the fish was taken.

I fought the fish for all I was worth for four hours and twenty minutes, then brought him to the boat on his side. I had most of the double line on the reel and four feet of the leader out of the water. I called to "Shorty" to put the gaff into him. Just then the fish gave a last struggle and went under the boat and the line fouled on the upper end of the shoe that protects the propellor. The fish still on his side was under the boat in plain view but beyond the reach of the gaff and held by the fouled line.

I slacked my line to see if the boatman could clear it with the gaff. The bag of the slack line drifted under the boat.

"Shorty" caught it with the gaff and cut it with his knife, then cut the line on the rod side of the boat, knotted the two ends, and told me reel in. I reeled in twenty-five feet or so of loose line and found he had cut the fish loose for he had knotted the wrong end and had thrown the fish end overboard.

I thought much but said nothing!

I put my rod down with relief mingled with disgust and looked over the side of the boat at the swordfish. He slowly revived a little, struggled, pulled the end of the line free and sank.

I had been very tired at the end of the first hour but had my second wind and was going strong at the finish.

I was a pretty stiff fisherman the following day. All my old hunting and polo breaks and strains were in strong evidence. If there had been a trout stream on the island I would have gone trout fishing. Trout were about my size that day.

Trying to make the fish take the bait and

SWORDFISHING IN THE PACIFIC

the moments that passed after the fish faded away beneath the surface and until he was hooked were moments of great excitement, but the rest of the time had been too hard work to call it unadulterated pleasure.

There were members of the Tuna Club at Avalon who had fished for forty, yes, fifty days and had not persuaded a fish to take the bait, and I had hooked one before I had been fishing two hours. They called that good luck but I did not feel that way at the moment, yet I revived quickly.

A few days later I hooked another large fish, pumped and hauled him for three hours, and broke my rod at the butt. The boatman spliced the rod while I held the tired fish with the tip. I then brought the fish alongside in twenty minutes more quite ready to gaff. The boatman had the leader in one hand and the gaff in the other when the leader caught between the brass cap of the exhaust, which was not screwed home, and the side of the boat. The hook straight-

ened out and the fish sank. The hook had been in the corner of his hard mouth.

Swordfish were very plentiful that summer for the first time. I counted and fished for nine one morning not five miles from Avalon. Some days they seem very shy and will not look at any bait. It is the custom to try a barracouta for bait if they refuse the flying fish, and if they do not take that an albacore may entice them. They have been known to take an albacore weighing twenty-four pounds.

After ten days' fishing for broadbills I left for Clemente, to look for marlin, where I remained three days and on my return had five more days with the swordfish.

The sea was like glass most mornings so that the fish could be seen at a great distance.

In the last five days I tried about twenty-five broadbills but only hooked one. The others would either cut the bait off the hook or else pay no attention to it but swim off and come to the surface one hundred yards



MR. J. S. DOUGLAS' SWORDFISH
104 pounds

SWORDFISHING IN THE PACIFIC

or more away, where we would follow and try again. We often wasted two hours after one fish in this manner. If the fish are not hungry this treatment seems to bore them for they will jump out clumsily four or five times.

I played the third fish four hours and forty minutes, "Shorty" taking the rod for a short time to allow him to feel the weight of the fish. When the fish seemed to be leading nicely the hook pulled out. I am sure he was foul-hooked in his thin-skinned body for I could feel the hook slip from time to time. After the first hour he jumped at least ten feet into the air showing plainly his broad back, which looked as wide as the bottom of a canoe. He then ran out six hundred feet of line and fought on the surface. This amused the dog, Pard, greatly.

It is difficult to persuade a broadbill to bite and still more difficult to hook him, and if he is a big one, still more difficult to do anything with him after he is hooked.

He is a much more interesting fish to fight than the large tuna for he is a better general and no two fish seem to fight alike. There is a sameness about tuna fishing that does not exist in swordfishing.

It would be quite impossible to kill these fish without the modern reel with its heavy drag; thumb pressure alone could not do it, the fish are too strong.

This fishing was a lesson to me in what fishing tackle will stand. I did not think it possible that a split bamboo rod and a 24-thread line could stand such a strain.

The rod I broke had just come from the shop after having a new ferrule fitted on the tip. The workman must have damaged the outer skin of the bamboo for the rod broke gradually.

It was hard work but a great experience, for one learns something every day one fishes, no matter how many days or how many years one devotes to the sport.

V
FARD

"THIS DISH OF MEAT IS TOO GOOD FOR ANY BUT
ANGELERS, OR VERY HONEST MEN."

Falton.

V

PARD

NOT much is known of Pard's pedigree except the fact that his mother was a bull-bitch and that he was brought as a puppy to Avalon and believed to be a clean bred bull-pup. But when his owner saw him grow up a nondescript he abandoned him and the dog became "Shorty's" Pard.

If I can trust my eyes his father was a foxhound and a good one, for few dogs have a better nose than Pard. "Shorty's" little nephew says: "Uncle 'Shorty's' feet must smell strong and pleasant-like for Pard can find him anywhere."

The dog must have a Teutonic ancestor somewhere for his favorite food is Bologna sausage. If you give him a nickel he will trot off with it to the butcher's and return with a paper parcel for you to open containing five cents' worth of Bologna.

SOME FISH AND SOME FISHING

In the summertime Avalon is crowded and everyone knows Pard and the butcher does a thriving trade in Bologna, yet he tells me Pard is his only customer as the island is strongly pro-Ally. When Pard is not hungry he collects nickels all the same and deposits them in "Shorty's" locker on the wharf.

I never saw him refuse money on shore but nothing can persuade him to look at a coin when on board the launch.

One morning as I was going to breakfast at Joe's Restaurant I met the dog and gave him his usual nickel and was surprised to see him follow me into the restaurant and slip into the kitchen with the first waiter who passed through the swinging doors. In a few moments he reappeared with a mutton bone which he had purchased from the cook. It was Sunday morning and, without going to look, Pard knew the butcher's shop was closed!

"Shorty" is a public fisherman. In sum-

mer he takes sportsmen fishing and in winter he fishes for the market. On all these trips Pard acts as first mate, and there is little that he does not know about fish and fishing.

"Shorty" tells me that in the winter he has an alarm-clock to call him at four o'clock in the morning but that Pard seldom fails to paw his arm a few moments before the alarm sounds.

He has never been known to forget his good manners on board the boat though stormbound for forty-eight hours, and he will not drink a drop of water even in the warmest weather until he reaches land. Pard reasons as well as thinks.

Pard has but two dislikes; one is wasps, the other bull-dogs. He snarls and snaps at the former and pounces upon the latter. He knows he is the son of a bull-bitch but evidently does not like to be reminded of the fact.

Last winter Avalon was partly destroyed

by fire, and the moving picture people in Los Angeles saw a great opportunity to stage a scene for "Civilization" called "After the Battle." "Shorty" represented a dead French soldier being watched over by his faithful dog. The widow appears searching for her dead husband. She sees their dog and falls fainting upon her dead spouse. Pard objected to this and the battle began again. The dead French soldier was obliged to sit up and stop the fight. The film was a failure.

Pard can see a swordfish at a great distance, and whenever I was hooked to one would sit up beside me and attempt to tell me how to fight the fish and became greatly excited when the fish jumped. When a fish was gaffed he played the "Chocolat act" by rushing about all over the boat attempting to do nothing.

For intelligence and common sense Pard has few equals among canines. He is almost human.

VI

THE MARLIN OR SPEARFISH

"WITH HIS MOUTH WIDE OPEN AND HIS FINS ALL SPREAD,
WALKING ON HIS TAIL AND STANDING ON HIS HEAD
SPEARFISH! OR SWORDFISH, CALL HIM WHAT YOU WILL,
HE'S THE VERY KING OF THE FIGHTING DEVILS STILL."

VI

THE MARLIN OR SPEARFISH

(*Tetrapturus mitsukurii*)

I JOURNEYED from Maine to Santa Catalina Island, California, at the end of August to attempt to take a marlin. This fish is the jumping-jack of the Pacific ocean, and I had heard so much of his acrobatic performances that I decided that no journey would be too long if I could but capture one.

The marlin is sometimes called the Japanese swordfish, which is a misnomer, for his so-called sword is a spear shaped like a marlin-spike, hence the name, marlin. He is a true spearfish and is to be found in the warm waters of the Pacific ocean.

He appears, as a rule, off the island of San Clemente in early September, coming from the south. San Clemente is twenty miles due south of Santa Catalina Island.

Some years these fish have been very numerous off the latter island during the second half of the month of September, but I was disappointed when told on my arrival at the Tuna Club that but one fish had so far been taken during the summer. Others had been reported but they were few and far between.

As the members of the club were all fishing for swordfish (*Xiphias gladius*) I had to follow suit, for no tuna were reported.

We roamed the ocean and "Shorty," my boatman, and Pard, his dog, looked for swordfish. I kept a line wet most of the time, hoping for a stray marlin.

After ten days' swordfishing I heard that the marlin were reported as being plentiful off the island of San Clemente and decided, Mohammed-like, to go to the mountain.

What makes the waters around the Channel Islands ideal for fishing is the fact that on nine out of ten mornings during the summer months you will find the ocean as



THE CAMP AT SAN CLEMENTE

THE MARLIN OR SPEARFISH

smooth as glass. About noon the westerly trades begin to blow. Sometimes it is a gentle wind but often it blows hard and the sea becomes too rough for comfortable fishing after two o'clock.

We made an early start from Avalon in order to take advantage of a smooth sea, coasted along lovely Santa Catalina, cleared the island, and steered due south for the camp at San Clemente.

It was not long before the fog which overhangs the islands in the early mornings lifted so that we could see San Clemente in the distance.

San Clemente is evidently the overflow of a great volcano and is a mountain of rock and lava rising from the sea. It is studded with caverns and caves, not only along the coast line but beneath it and up its cañon-riven sides.

The flora consists of arbovitae, ironwood, cactus, and ice-plants, and wild oats grow on the tableland.

The island belongs to the United States government and is leased as a sheep-ranch. It supports some fifteen thousand sheep and wild goats which feast upon the wild oats and use the caves for shelters. The only inhabitants are the sheep herders and Pete Schneider, a Belgian, who runs the camp at Mosquito Harbour where we were bound.

We reached the island about four hours after leaving Avalon, having seen but little sea-life on the way—only a few sunfish jumping here and there and a school or two of porpoises.

We found the camp a very simple one but clean and the food very good. We slept under canvas, washed and shaved out of doors, and took our meals in a wooden shack.

The island is about eighteen miles long and has great majestic beauty of outline. The waters that surround it have been celebrated for fishing. Tuna, yellowtail, white sea-bass, black sea-bass, and marlin are to be found in plenty at the right seasons.

THE MARLIN OR SPEARFISH

We found but one party fishing there and they arrived home at suppertime empty handed.

I told "Shorty" to find out from their boatman where the marlin were trading, for several fish had been taken during the week. The jealous boatman gave "Shorty" the wrong advice by telling him the fish were to be found in shore.

We started the following morning bright and early and zigzagged the whole length of the island but found only one fish lazily sunning himself on the surface. Try as we would we could not persuade him to look at any bait.

We trolled for ten weary hours. I say weary hours for it is a strain to troll a flying-fish bait weighing a pound at the end of one hundred or more feet of line held by thumb pressure only, for one must be ready to give line if one has a strike as the fish pick up the bait and move off before gorging it. That is the theory but not my experience, for the

following day I trolled with only seventy-five feet of line and struck the fish when he struck me.

That night a kind sportsman told me that we had been on the wrong track, that the fish were off shore at the eastern end of the island. It seems the kelp-cutter from the potash factory at San Diego had been cutting the kelp, some of which had floated off shore and harboured much bait, and the marlin were feeding on this small fry.

We were off at seven the following morning and rounded Eastern Point where the sea was breaking on the reef in great circles of white foam.

We trolled around the point, into and around Smugglers' Cove, a celebrated fishing ground, and then made a bee line off shore. About six miles out we found acres of floating kelp with myriads of small fish jumping about, evidently being pursued.

It was not long before we lost the teaser. A teaser is a flying-fish attached by twenty-



MARLIN WHEN FIRST HOOKED



THE END OF A JUMP

five feet of line to a fifteen-foot bamboo pole. No hook is used. This flying-fish skitters along on top of the water and acts as chum. My bait was fifty feet further astern.

I soon had a strike and hooked a marlin. He jumped half out of water and tried to shake the hook loose but I had driven it well home. He then performed a stunt that was beyond all my fishing experience. We were following the fish at full speed at the time and the reel brake was on, but this strong and lively fish jumped twenty-two times in a straight line tearing the line off the bending rod as he went. He then sounded and jumped again, fought on top of the water, swam in circles, and performed every kind of piscatorial acrobatics known. He jumped twenty-nine times and in forty-five minutes I had him alongside stone dead. My first marlin! I was warm with excitement and pleasure, for my journey of thirty-five hundred miles had now been well worth while. "Shorty" shook me by the hand and sug-

gested that we land a few more, which we proceeded to do after stowing our fish on board.

I soon had another strike and hooked the fish. This one proved to be a perfect dancing-master, for after showing his beak and shaking his head he made a run of about one hundred feet, then rose up out of the sea and did a song and dance on the end of his tail for fully one hundred yards. We were following him at full speed but he was simply stripping the line from off the reel. Then he disappeared below the surface and "Shorty" said: "You have lost him." The line was slack and I was reeling in as fast as I could when suddenly I saw the spearfish on top of the water, charging down upon us, while following him was the bag of the slack line cutting the spindrift off the tops of the white-crested waves. He was coming at great speed. I yelled: "Port your helm, 'Shorty,' " and as the boat turned the fish shot by on the surface close under the stern.

THE MARLIN OR SPEARFISH

Would he have gone through or under the boat had we not altered our course? I wonder.

As the line became taut the fish jumped clear of the surface. He jumped in all twenty-two times and in thirty-five minutes came alongside belly up, when it was found that he was hooked in the tail.

The fish was beautiful to look at. The greater part of his body was bright silver and he was striped with translucent royal purple stripes an inch wide. His back was dark green bronze and his tail and fins were mauve.

When in the water he is a blaze of glory but the colours soon fade after the dead fish is exposed to the air. A mounted marlin gives one an idea of the graceful shape of the fish but no idea of his real beauty of colour.

It took us some time to hoist the dead fish on board, for although a fish only weighs in the water the number of pounds that the

water he displaces would weigh, any part of the fish that is above the surface is of course dead weight.

The first fish had been laid across the stern of the boat; that was easy, but this fish had to be roped on to the narrow deck on the port side.

His weight at the moment was over two hundred pounds and the combined weight of fisherman and boatman was only two hundred and sixty pounds. "Shorty" fastened the peak halliard block to the bill of the marlin while I roped his tail. Then the fish was hoisted half out of the water but I did not have strength enough to lift the other half on board. I told "Shorty" to gaff the fish in or near the anal fin and give me a hand, get the fish on board, and lower away.

Now a funny thing happened. It was rough and we were rolling about in the trough of the sea. As "Shorty" attempted to drive the gaff home the end of the bamboo



teaser pole, which had been carelessly thrown on top of the deck house and was foul of the mast, caught "Shorty" in the back as the boat rolled and catapulted him into the sea. He climbed back on board a very wet and surprised sailorman for he did not know what had hit him.

We soon found the floating kelp and the jumping small fry and had not been trolling more than a quarter of an hour before we ran into a school of marlin. Four or five rushed after the teaser and pulled the pole overboard. It went bobbing away astern, first disappearing entirely, then shooting straight up on end. This happened several times in a most comical manner before the fish disconnected the flying-fish from the line to which it was made fast.

A moment later a marlin took my bait, I hooked him, and the music began again. The fish emerged with beak open and shook himself, then rushed on top of the water for one hundred yards and jumped clear

of the surface. He then pirouetted once or twice on the end of his tail and jumped again. After jumping sixteen times in twenty minutes he sounded and fought more like a true swordfish than a marlin. He was a tough customer to handle and it took me eighty minutes to land him.

I looked at my watch as he was gaffed and found it was just three hours and a half from the time of the strike of the first fish!

"Shorty" remarked: "Some fishing, eh? Let's corral another."

I insisted on having lunch first, which we devoured while the launch with her six hundred pounds of fish on deck tried hard to roll over.

A heavy sea was running. It had been all I could do while playing the last fish to keep from going overboard. Had it not been for my patent rod rest which held my rod steady and gave me something to hold on to, I should have been in the sea and like

"Shorty" arrayed in an Isadora Duncan bathing suit.

It was too rough to fish so we started back to camp. We had not gone far before "Shorty" saw a swordfish, a true broadbill. He slowed the launch down and wanted me to try him. I told him to give the fish a wide berth and go full steam ahead. I wanted no five-hour fight with a broadbill in that rough sea after the three hours and a half of calisthenics that I had been through. In fact I had had enough fishing for one day. How seldom that happens!

On our way back to the camp we ran into a large school of marlin. The crest of every big wave was pierced by their large dorsal fins as they rode on the top of the heavy swells. I never saw such a fish picture before and it was heartrending to think that it was too rough to fish with safety. We had a teaser pole out, which was torn loose. The fish seemed ready to devour everything in sight.

It was too rough to go back to Avalon that night so we remained at the camp.

The wind was strong from the northwest and as our course was due north we had a rough trip of over five hours and a half the following day and arrived at Avalon with everything on board afloat.

The fish were weighed on the Tuna Club scales thirty hours after they had been taken and tipped the beam at 189, 186, and 183 pounds. These fish seem all to be of about the same length, from ten to eleven feet, their weight depending on their girth.

Marlin are the most sensational fish that swim. Their pace and agility, the way they walk the tight rope on the end of their tails, and their power to jump have to be seen to be believed.

I am told that the heavy fish—record 372 pounds—do not jump much and are hard to kill.

A friend of mine saw a marlin in the fish market at Honolulu that weighed 725



THREE AND ONE HALF HOURS' FISHING
AT SAN CLEMENTE

THE MARLIN OR SPEARFISH

pounds, and it is said that fish exist that weigh one thousand pounds or more.

The tackle allowed by the rules of the Tuna Club is a rod of wood consisting of a butt and tip not to be shorter than six feet nine inches over all; the tip not less than five feet in length and to weigh not more than sixteen ounces; line not to exceed standard 24 thread. The hooks used are the regulation tarpon trolling-hooks. The wire leader is twelve feet long and the bait a flying-fish. I fished with 1,000 feet of line but most fishermen carry from 1,200 to 1,500 feet.

RECORD

The first marlin, weighing 125 pounds, was taken in 1903. There was another taken in 1905 and again in 1908.

9 were taken in 1909

9 were taken in 1910

34 were taken in 1911

100 were taken in 1912

SOME FISH AND SOME FISHING

22 were taken in 1913

24 were taken in 1914

47 were taken in 1915

70 were taken in 1916

315 fish

The largest fish weighed 340 pounds.

VII

FISHING WITH KITE AND SLED

"ALL THAT ARE LOVERS OF VIRTUE, . . . BE QUIET AND
GO A-ANGLING."

Walton.

VII

FISHING WITH KITE AND SLED

NO one has ever been able to decide what causes fish to change their habits, yet every fisherman has theories on the subject.

When I first visited Catalina Island in 1900 the tuna were very plentiful and could be taken by simply trolling a hundred feet of line behind a launch, with a flying-fish for bait.

I captured five in six hours, averaging one hundred pounds in weight, and landed thirteen fish in fifteen days' fishing within five miles of Avalon.

On my second visit in 1910 it was impossible to persuade a tuna to take unless the bait was skittered in front of his nose and the fish persuaded that the flying-fish was alive. Why this change?

Some of the fishermen maintained that

the tuna had become educated and therefore more difficult to deceive. They are a migratory fish and it is hardly probable that the same schools return as a rule to the waters of the Channel Islands, especially as the fish have the habit of disappearing entirely for years at a time.

The fact remains that the schools of fish would vanish if approached by a boat and would not follow the wake of a launch under any circumstances.

Skittering a one-pound bait with a rod is hard work, so kite fishing was invented at Avalon for this purpose and proved to be a great success, and it has become the belief that no one can take a tuna these days by any other means.

The kite used is a simple 28 inch or larger boy's kite made preferably of silk with the usual ragtail to which are added a few wine bottle corks to make the kite float should it fall into the sea.

The kite is allowed about seven hundred



FISHING WITH A KITE

FISHING WITH KITE AND SLED

feet of old fishing line from off a reel, and then the fisherman's line is tied to the kite line about twenty feet from the bait with a piece of cotton twine. The kite is then given more line in order to place the bait at the proper distance from the launch.

The launch then travels across the wind or tacks down wind, the boatman adjusting the speed and direction so as to make the flying-fish bait skitter along the surface and jump from wave to wave, which action the fisherman can aid with his rod.

The boatman manœuvres the boat so that the bait passes ahead of the school of fish or through the school if so inclined. The bait being well to leeward the fish are not disturbed or frightened by the launch.

When a tuna takes the bait the cotton line breaks and the kite is reeled in or falls into the sea according to the direction in which the hooked fish travels.

Many fish have been captured by this

SOME FISH AND SOME FISHING
means which could not otherwise be persuaded to take.

Some of the boatmen at Avalon have become artists in kite fishing for it is not as simple as it reads, as the kite must fly steadily and the bait be kept moving in a natural manner, for although it is easy to fool some fish sometimes it is not easy to fool all the fish all the time.

For a kite to fly, there must be wind and wind of the proper weight. It must not blow too light nor too heavy, for in the latter case it is difficult to keep the bait on the surface of the water.

In order to find a substitute for the kite the wise men of the Tuna Club put their heads together and invented or adapted sled fishing. I say adapted, for poachers in Great Britain have for years used a sled in some fast running streams in order to place a shrimp or bunch of worms in mid-stream so as to steal other people's salmon and trout.



FISHING WITH A SLED

FISHING WITH KITE AND SLED

The sled used at Catalina is a roughly made boy's sled about three feet long with solid runners well tipped up in front. The top of the sled instead of being solid has two crossboards about six inches wide and six inches apart screwed on to the runners at a slight slant so that the sled will not bury but will ride the waves. A strong eyebolt is screwed through each top board and down into the high runner and these are joined by a light but strong rope.

To this rope one hundred or more feet of light cotton rope is attached at about one third of the length of the sled from the fore end of the runner. For instance, in a three foot sled it would be made fast one foot from the fore end. The baited line is tied as in kite fishing at whatever distance you may choose from the sled. The leading line is then played out eighty or one hundred feet and made fast to the mast, the higher up the better to keep the belly of the line from dragging in the water.

The launch is then started at a good pace and as soon as the leading line becomes taut the sled races along abreast of the boat in gallant style and the bait skitters and bounds from wave to wave.

When a fish strikes, your line pulls free but the impetus of the sled is such that the fish seldom escapes being hooked.

The sled does not frighten the fish in the least. Marlin have been known to follow and strike it and yellowtail to chase in hot pursuit.

By this method the boatman can place the bait wherever it is wanted.

In yellowtail fishing the bait can be trolled along the edge of the kelp, which the yellowtail frequent, and this cannot be done by ordinary means as the kelp fouls the propellor of the launch.

These methods of fishing are full of movement and are most amusing as well as successful ways of taking both tuna and yellowtail.

VIII

THE BOATMEN OF AVALON

"OF RECREATION THERE IS NONE SO
FREE AS FISHING IS ALONE."

VIII

THE BOATMEN OF AVALON

THE public boatmen at Avalon own their own launches and supply all manner of fishing tackle to their patrons, the loan of which is included in the price charged for the day's rental of the fishing boat.

The luxury of borrowed tackle is much enjoyed by the novice or casual fishing visitor, who does not appreciate until too late that his expenses have been greatly added to by breakage, for broken tackle must be replaced by the amateur and the lines supplied are often of ancient vintage.

The regulars have their own personal ideas as to rods, reels, and lines, and do not trust the outfits supplied by the professionals, but the innocent one-day casual fisherman has to learn by experience. If he returns to Catalina on a second visit he

generally arrives supplied with tackle galore, for his visit has made him wise.

If you are unfortunate enough to lose a fish, it is the boatman who is disappointed, for he feels that it is his reputation as a fisherman that has been injured by your mistakes or your misfortune, and you rise or fall in his estimation according to your skill, or often your luck, in landing fish, for his reputation depends upon the fish that are brought home and weighed.

The amount of sport a fisherman enjoys at Catalina on his first visit to the island depends greatly upon the boatman he employs to guide him in his piscatorial efforts, for there are boatmen a-plenty to be had but they are not all good fishermen as well.

I remember the experience of a friend of mine a few years ago. He arrived at Avalon full of expectation and, having read Professor Holder's books and learned much of the ability and fishing knowledge of one



SANTA CATALINA FISHING LAUNCH

"Mexican Joe," hunted him up and started out fishing.

Now Mexican Joe in the Professor's day and at the time I would tell of was two different beings. Joe had grown old and careless and no longer took much interest in his trade. His boat and tackle were antiquated and what custom he had was owing to his past reputation, for he had been one of the earliest and best fishermen at Avalon.

My friend fished with fair luck and captured a few albacore. Towards sunset when some miles from land, the launch suddenly stopped and Joe began to tinker with the engine, but to no avail. After trying every trick he knew of he went forward and sounded the gasoline tank and informed my enthusiastic fishing friend that the last drop of gasoline had disappeared.

Joe was not at all disturbed at the situation, remarking that they would surely be picked up during the night or on the mor-

SOME FISH AND SOME FISHING
row. He was afloat on his home waters and quite happy.

After throwing the fish that had been caught overboard, much against the advice of my friend who saw the only food in sight wasted, Joe curled up and went to sleep.

Night had fallen and the wind began to blow, which caused a short sea that tossed the helpless launch about in a most uncomfortable manner. My friend sat in a chair all night, bracing himself against the tumbling waves, believing that his night as well as his day had come.

They were searched for the following morning and picked up many miles from Avalon.

The names of Professor Holder and Mexican Joe are both still anathema to my fishing friend, for he has not forgotten his night-long vigil in an open launch on a strange and inhospitable sea.

The boatmen are of many different nationalities. One of them, a Latin and a good

fisherman, was employed by a giant cattleman from the western plains to take him fishing. He undertook to tell the cowboy how to fish: "Me-ester Snow," he said, "you must not leeft your rod dat way but dis way."—"Go on, you d—d dago, don't you suppose I know how to fish?" had been the reply. A short time after the Westerner landed a fish by brute force and shouted: "There is a fish for you, my dago friend, did I not tell you I knew how to fish?" "Yes, Mr. Snow," said the boatman as he removed the hook, "you have a fish but, Mr. Snow, it is the leetlest fish I ever see!"

One season on my arrival at Catalina I found my usual boatman was employed for a few days so that I was obliged to hunt for a substitute. The fishing had been good and most of the boats were engaged by the week. The man who fell to my lot was a foreigner with a great reputation for finding fish if they were anywhere about. I was not impressed by his boat. It looked like a junk-

shop. Rusted bolts, screws, hooks, and tools were piled in heaps on the thwarts, and the boat had apparently not been cleaned in many moons.

The boatman produced a very rusty hook and snood and proposed to bend it on to my line. I objected and handed him a new hook rigged to my liking. This was criticised and not approved of but reluctantly tied to my line, and I proceeded to fish.

A short time after the boatman touched me on the shoulder and remarked: "You men come from the East and tell us professionals how to fish." I said nothing notwithstanding that the boot was on the other leg.

We combed the ocean all day with no result, for it was one of those still days at sea which makes one believe that the fish have formed a League of Nations with an agreement not to bite.

On the following day I hooked a large marlin and the fun began. I looked over



SPEARFISH OR MARLIN

my shoulder and saw the fish jumping ahead of the launch and became busy reeling in the slack line. When this had been accomplished I found to my horror that it led directly under the launch, the boatman having crossed the line. I shouted but the boatman calmly replied: "How do I know where the fish he goes!" The line fouled on the keel of the launch and parted.

I sat with folded arms and watched that giant fish, irritated by the drag through the water of five hundred feet of free line, jump thirty or more times. The conversation that followed the final jump of that marlin was interesting; however, I hooked another fish and that one was safely landed.

Two days later this boatman had a novice fishing with him who lost a fine fish at the last moment, owing to the breaking of the wire snood—the rusty one I had discarded!

Swordfish and marlin have such great strength and weight that it is always wise to take no chances with tackle. It must be

new, sound, and strong, for it is heartbreaking to lose a fish after thirty minutes, or in some cases hours, of hard struggle.

IX

THE LADY AND THE TUNA

"HEED WITH THE PONY FOR THE TUNNIES LEAP,
FLOUNCE ON THE STREAM AND TOSS THE MANTLING
DEEP,
RIDE ON THE FOAMING SEAS, WITH TORTURE RAVE,
BOUND INTO AIR, AND DASH THE SMOKING WAVE."

Helicentica, OFFPLAN, A.D. 180

IX

THE LADY AND THE TUNA

I WAS sitting on the hotel piazza at Avalon one summer afternoon, smoking and thinking of my morning's sport. My experience that morning had been a strange one. I had started out fishing before daybreak, much to my discomfort, for I am not a willing early riser; but it pays at Catalina, for the sun rising over the mountains is a sight never to be forgotten. About half an hour after daylight I had hooked a tuna which bolted with the flying-fish bait at express-train speed and was only checked, after taking six hundred feet of line, by the spreading of my reel. I was fishing with a tarpon reel of large size but not strong enough for so fast and heavy a fish. The reel handle would not turn either way, and my boatman whispered, "Stung!" in my

ear. "Not on your life." had been my ready reply. Luckily, I had two rods in the boat but they were not of the same make nor were the butt sockets of the same diameter. I called to the boatman to follow the fish which was only too glad to travel slowly, being much exhausted after his great run. I then told my man Gibbons, who was also in the launch, to strip three-quarters of the line from off the spare reel, and cut it, then to pass the line through the eyes of the rod and let me know when he was ready. In the meantime I wound the line a dozen times around my left, gloved, hand from off the reel I was fishing with. When my man said that he was ready I told him to cut my line close to the reel and to tie it to the line at the tip end of the rod he held. I then told him to reel the knotted line home as I unwound the line from my left hand. When he told me that this had been done, I removed the tip from the butt I held and allowed it to shoot six hundred feet down

the line to the fish. I then grasped the second rod and fought the fish to a finish in half an hour.

When the dying fish came to the surface, having handed my rod to the boatman, I brought the victim alongside to be gaffed on the original tip which had been for thirty minutes in the depths of the sea.

As I said, I was thinking over this experience and wondering what would have happened had I not had a second rod with me, when a fellow-sportsman came to me and asked if he might present me to Miss C. of Los Angeles. Miss C. was a buxom young woman who complimented me on my success in taking tuna, and informed me that she had been fishing for a month for yellow-tail with light tackle but was most keen to land a tuna, a feat no woman had ever succeeded in accomplishing. I told her she had better go fishing with me that afternoon, never thinking for a moment that we should find fish at that hour of the day, but know-

ing that the next best thing to catching fish is to fish for them without catching them. I having supplied Miss C. with a rod and a newly purchased tarpon reel, we started, sitting side by side in chair seats in the stern of the fishing launch — a very pleasant scheme for gentle conversation but not for fishing; for it is customary that, if one of the party hooks a fish, the other shall reel in and patiently watch the sport.

We had been out on the ocean about half an hour when I hooked a tuna. At the same moment I heard my companion shout, "I have one too, and our lines are crossed." I stood up in the boat, passed my rod under and over hers, and luckily cleared the lines. My fish traveled fast to the north, the other fish going south. Then the fun began in earnest. I told the boatman to sit tight as there was nothing he could do to help us, and, having taken the seat in the stern facing the bow of the boat, I began to fight my fish with all my strength, for I knew that the



THE LADY AND THE TUNA

harder I fought it the more it would distress the other fish.

I kept hearing "Ohs!" and "Ahs!" and "Great Heavens!" from my fair companion, but was too busy myself to pay much attention to what she was doing. In forty-five minutes I had my fish alongside and gaffed—104 pounds. Then I looked to see what was going on to the southward. I found the lady's tuna had luckily been hooked in the top of the mouth, that it had practically drowned itself on its first long run, and had since then been flopping about on the surface of the water. I also saw that Miss C.'s reel had blocked, so that the line would not run out, and that she had but fifty feet of line left. She was holding on to the rod for dear life but looked very pale. I told the boatman to back the boat slowly toward the flopping fish, and was pleased to find that the reel would take the line. We soon had the tuna gaffed and in the boat—118 pounds. Miss C. collapsed at once; her hat

SOME FISH AND SOME FISHING

was off, her hair was streaming down her back, and she was utterly exhausted, so we hastened back to Avalon with the Tuna Club flag proudly flying at the mast.

There was consternation at the Tuna Club that evening. We supposed that anyone was eligible to membership in the Club who had killed a tuna of one hundred pounds unaided; but the women did not have the vote in California then and no provision had been made for lady members, for it had not been supposed that a lady could possibly take a tuna. Miss C., sad to relate, was refused membership but was awarded the much-prized tuna button, which no doubt is still her most valued possession.

I often think of that day's fishing with pleasure as it was a day full of new sensations and many thrills, for the tuna were leaping about everywhere, chasing the flying-fish.

X

THE BIG MARLIN AT GALLAGHER'S

X

THE BIG MARLIN AT GALLAGHER'S

MARLIN fishing is most interesting, for as a rule you see the action of the fish on the surface as he approaches and takes the bait.

One of the charms of salmon fishing is that one may often stalk, coax, and finally capture an individual fish. This is also sometimes possible when fishing for marlin. It is a question of matching your wits and your skill against the natural cleverness of the fish. No two fish fight just alike, so that you must adapt your tactics to the fighting strategy of the individual fish.

We had all been fishing for marlin for some days with poor luck. Twenty-two launches had been trolling back and forth from Seal Rocks to San Diego Bank, as if in the wide Pacific Ocean no marlin could be found except in that restricted stretch of sea.

SOME FISH AND SOME FISHING

An average of two fish a day for twenty-two boats is not great fishing.

I had taken three good fish in four days, yet was not satisfied with the result of my labours and decided to hunt for fish instead of having them hunt for me.

One day after luncheon I told my boatman to go to Gallagher's for a try. Gallagher's is a cove at the mouth of a small cañon and in the cañon there is a dismantled house once occupied by one Gallagher, a fisherman.

This indentation is out of the tideway and we found its waters alive with bait. We had hardly entered the cove when we saw the large dorsal fin of a marlin that was lying close in to the edge of the kelp comfortably sunning himself. As we approached he sank.

After trolling about for a time with no result, I told the boatman not to bother to look for the fish for, judging from the amount of food that was about, the marlin

THE BIG MARLIN AT GALLAGHER'S must have satisfied his hunger. I felt that he would remain where food was so plentiful, and the moon being young and the nights dark, the early morning would be the time to find the fish hungry.

The following morning at seven-thirty, we were bound for Gallagher's. We had trolled about the cove but a few moments when a large marlin side-wiped my bait leaving only the head of the flying-fish on the hook as a token of his fencing ability.

He must have been a pricked fish with a good memory, for, although we baited up with a fresh flying-fish, no amount of coaxing had any results. As a rule, fish as hungry as he appeared to be, return for more food.

The next morning we were back at Gallagher's. We had hardly entered the cove when I saw the giant fish, showing his dorsal fin and tail, coming on the surface at railroad speed, and shouted: "Here he comes."

He hit the bait and the line ran out. I

SOME FISH AND SOME FISHING

gave him one hundred feet or more of line and then struck—solid! The fight began!

The fish jumped but once, a beautiful clean jump of twenty feet before landing with a splash. As he jumped the bait came up the line and I then knew that he had hit the bait with his sword and had become foul-hooked trying to follow it.

He was a heavy fish and fought hard as they always do when they do not exhaust themselves by continuous lofty jumping.

I landed him after ninety minutes of very hard work and found that he was foul-hooked just below the pectoral fin on the right side.

He had struck when traveling too fast, had driven the bait up the line and turning to get it had hooked himself in the side.

I had passed the greater part of two mornings in an endeavor to outwit this fish and had been rewarded for my labour. That is what I call good fishing. The fish weighed $222\frac{1}{2}$ pounds.

XI

THE GIANT BASS



JEWFISH, 450 POUNDS
Florida

XI

THE GIANT BASS

(*Stereopolepis gigas*)

THE giant bass is a monster fish of the Pacific Ocean and is found along the edge of the forests of kelp that fringe the rocky coasts of the islands of southern California from the Coronados to the Farallones.

This fish is often confounded with the jewfish (*ponnicrops guttatus*) but is in reality quite a different fish.

The jewfish frequents warmer water than that of the Channel Islands and is to be found along the coast of Lower California as well as in the waters of southern Florida and in the Gulf of Mexico. It is more like a giant grouper than a bass, for it is a skin fish with small scales underneath the skin and has rounded fins and a rounded tail, whereas the giant bass resembles the fresh

water small-mouthed bass and is covered with scales, is mottled on the belly, and has square fins and tail.

The giant bass grows to a great size. It is said that one was landed by a handline in the gulf of California that weighed 720 pounds.

These fish have been taken at Catalina Island for some years on regulation tuna tackle, the record fish weighing 493 pounds.

Although the giant bass cannot rightly be classed as a game fish it gives the beginner a strenuous sensation and affords good training for more exciting sport with the rod.

A proper spot having been selected near the edge of the kelp, the boat is anchored and the anchor-rope buoyed so that it may be thrown overboard when a fish is hooked. This is really not necessary unless the fish is of great size. I took, from an anchored boat, three giant bass last season that would average over 250 pounds, in fifty minutes.



RECORD GIANT BASS
193 pounds. Mr. N. A. HOWARD

THE GIANT BASS

Although the giant bass has been known to take a trolling bait he is a bottom feeder, so the hook is preferably baited with the head of an albacore, for rock cod and other small fish that feed on the bottom soon destroy a soft bait. It is also the custom to give a fish sufficient line to allow the bait to be well swallowed before striking.

The giant bass has great strength but little staying power. It soon comes to the surface belly up if you fight it hard, but if you toy with it, it will tow your boat about and take hours to land.

It is claimed that a male fish of this variety is seldom hooked and that the smallest fish ever taken weighed seventeen pounds.

These fish are good food and find a ready sale in the market.

The jewfish are also well thought of as food and it is said that they received their vulgar name for the reason that "they will take anything."

XII

THE SAILFISH

XII

THE SAILFISH

(*Istiophorus nigricans*)

THE sailfish belongs to the same family as the spearfish and is to be found in the warm waters of the West Indies and in the Gulf stream along the coast of southern Florida.

The sailfish are long and slim of body and not of great weight. A fish that is seven feet long will as a rule weigh under fifty pounds.

Their peculiarity is their large indigo blue dorsal fin and it is difficult to fathom the purpose for which this fin is intended. The theory that these fish lie on the surface and work to windward with their sail-like fin is a romance, nor do they seem to use it when swimming beneath the surface. The fin houses in a slot and I have never seen it in use except when this active fish is jump-

ing about on the surface of the ocean, feeding, or rapidly travelling seaward; then it seems to be used as a rudder or guide, for the fish open and close it as they drive and jump along from wave to wave.

"The chief motive and jumping power of a fish is in its tail which as it hits the water straightens out the curving body and shoots it forward, allowing the pectoral and ventral fins to strike flat with their full power. The caudal, dorsal, and anal or vertical fins have steering functions to perform, while the pectoral and ventral pairs of fins are chiefly intended for balancing purposes.

Fish would be unable to navigate on an even keel without these horizontal fins, for the centre of gravity of most fish is toward the head or dorsal side.

To help matters a fish is supplied with an air-sack which renders it bulk for bulk about the same weight as the water it displaces."



SAILFISH

THE SAILFISH

The sailfish are most interesting fish to hunt after, for they are usually found in schools and can often be seen jumping above the surface of the sea.

They are not an easy fish to follow, for they are here, there, and everywhere for a few moments and then suddenly disappear.

Although they are a quick moving, agile fish, they are delicate biters and it requires patience and skill to hook them. At first it was supposed to be necessary to bait with a silver mullet in order to entice a sailfish to take, and they were difficult to hook, for it was found that they would mouth this large bait for some time before swallowing it. It is now the custom to fish for them with a long strip of cut-bait, preferably mullet, but any cut-bait seems to serve when they are taking well.

It is often possible to see the fish approaching, in which case it is wise to allow the bait to remain stationary by slowly circling with the boat and giving line before

striking, for the fish needs time in which to decide whether the morsel presented is really to its taste and, if so, may hold it in its beak for a time before the hook is in a position where it will hold when driven home.

Considering their weight the hooked sailfish fight hard. They jump many times, stand on their tails and perform other unexpected gymnastic feats, but as they tire, their sail-like dorsal fin seems to hamper their action.

As a game fish it has not long been known. The first was taken on a rod about twelve years ago. Twenty-five sailfish in a day is the record at Palm Beach for an exceptional day's sport enjoyed by the members of the Sailfish Club, and the record fish measured a trifle over eight feet in length.

The following fish story is from the *Paris Figaro*:

THE SAIL FISH

MARINE MONSTER CAPTURED

A huge sailfish, a fish rarely met with in the Atlantic, has been captured by fishermen off Concarneau and towed to that port. The fish measures eight metres long and four metres in circumference and weighs four tons. The fishermen are greatly disturbed over the presence in the vicinity of the fish's female companion, who followed her captured lord throughout the whole of the night he was being towed to port.

—*Figaro*, 1914.

The fish mentioned must have been a *Tetrapturus amplus*, the third and only other member of the *istiophoridae*. It is a rare fish and is said to grow to a great size. This fish is known in Cuba as the *aguja casta*.

XIII
THE BONEFISH
(*Albula vulpes*)

"THE WILLING FISH AROUND AMBITIOUS WAIT
FLY TO THE LINE AND FASTEN ON THE BAIT."

Oppian.

XIII

THE BONEFISH

(*Albula vulpes*)

THIS fish must not be confounded with the ladyfish (*Elops saurus*). The latter is to be found all along both the east and west coast of Florida and bears the local names of ladyfish, bonefish, bonyfish and big-eyed herring, but it has no resemblance to the true bonefish either in appearance or in its method of fighting, for it is a high and lofty jumper, whereas the true bonefish never leaves the water when hooked.

The bonefish (*Albula vulpes*) has fifteen rays on the dorsal fin and eight on the anal fin, whereas the ladyfish (*Elops saurus*) has twenty rays on the first dorsal fin and thirteen on the anal fin. The latter is a slim fish with delicate silver scales and has no streaks.

The bonefish proper has the appearance of a beautiful silvery fish very like the whitefish of the lakes; the mouth is small, the lips are thick with grinding teeth set in the throat. It has large fins and tail, hard scales, and is marked with stripes like a striped bass.

Bonefish are not large fish; the largest I ever saw weighed twelve pounds, but they will average five or six pounds. It is their fighting ability that is extraordinary and it is away above their weight, for they are the strongest and most plucky, as well as the most shy fish that swim in the sea.

The habitat of the true bonefish begins at Biscayne Bay, Florida, and extends through the Florida Keys. How far south they really go is not known but, as natives have told me that they are more plentiful in the summertime, it would lead one to believe that they come from the south. I have seen them in the Havana fish market, and on one occasion I saw a bonefish taken



BONEFISH
(*Lithula vulgaris*)

THE BONEFISH

from a net at the entrance to Havana harbor. In the winter and spring months they may be found from Bear's Cut to Bahia Honda.

These fish travel in schools and are to be found on the change of the tide in channels and on the flats often quite near the shore.

Along the bars near Caesar's Creek and northeast of Indian Key on the east side of Lower Matecumbe Channel are good fishing grounds but Card Sound is probably the best place to find them.

The fishing is best from flood to full tide at which time the fish come in to feed in water not more than eight or ten inches in depth. They feed on crustacea and as they hunt about the bottom their tails often show above the surface.

In fishing for bonefish the best tackle is a two-piece light split bamboo such as is known as a Punta Rassa rod, a free-running casting reel with four hundred feet or more of nine- or twelve- thread line, and two 4/0 hooks mounted on gut. Although many

fishermen think otherwise, no leader seems to be necessary. A four-sided sinker, one that will not roll in a tideway and frighten the fish, should be placed on the end of the line with the hooks above it. You can then, by keeping your line taut, feel the slightest bite.

The method of catching these fish is to pole a shallow-draft rowboat along the flats until you reach the spot where you purpose to fish, and to fasten her at bow and stern with short sticks that will cast no shadows, for the bonefish are very shy and being in shallow water the least shadow cast or noise made in the boat will frighten them away.

Your guide should then crush a crayfish and allow it to sink to the bottom attached to the boat by a bit of cord; if no crayfish is handy he may chum with crabmeat, for the tide will carry the small pieces along and attract the fish.

Having baited your hooks with soldier-crab, hermit-crab, sand-crabs, or sprites you

THE BONEFISH

cast your bait in the direction of the chum. Another method is to bait a chosen spot with chum, place your baited hook near by, move off some distance paying out line, and anchor. Allow the fish to pick up the bait and move off before striking, or better still by stopping the reel with your thumb allow the fish to hook itself.

It is most interesting to watch the bonefish feeding along with the tide and gradually approaching the spot where your bait lies. You can see their fins above the surface, and now and then the tail of a feeding fish will appear or the flash of the sun as it strikes their silvery sides will catch your eye.

When hooked the bonefish is off with a dash for it is the fastest moving fish that swims. It will take from two to four hundred feet of line in its first run, which is not infrequently repeated two or three times. This is the more remarkable owing to the shallow water. When the steady pres-

SOME FISH AND SOME FISHING

sure of the rod turns your fish it will circle around the boat again and again fighting all the time, and if you succeed in bringing it alongside it may be lifted into the boat, for it has died game of sheer exhaustion.

As the tarpon is rated the king of the large game fish that swim in the sea so should the bonefish be classed the king of the smaller tribe, for he is game to the very last moment.

The bonefish are supposed to be good eating and the taste of the meat is said to resemble the shad. I can testify that they resemble the latter fish as to the number of bones they contain for in that respect they are well named.

XIV

THE STRIPED BASS IN THE PACIFIC

"BE NOT FORGETFUL TO ENTERTAIN STRANGERS."

XIV

THE STRIPED BASS IN THE PACIFIC

FROM the American seafisherman's standpoint the striped bass should be considered the most interesting fish that swims in the sea, not only on account of its gameness and the interesting sport it has afforded but also because the science of sea-fishing in American waters has been developed from striped bass fishing. Most scientific sea-tackle is based on the knowledge acquired from years of striped bass fishing, for it was the first seafish that American anglers fished for scientifically. Prior to the sixties braided lines and large single action reels were in use along our coast just as they are along the coast of England today, but this antiquated tackle proved to be not sufficiently strong or quick enough in action for so agile a fish as the striped bass.

SOME FISH AND SOME FISHING

Three jointed rods of ash or lance-wood were used at first, then the Calcutta and Japan bamboo rods came into fashion and these were developed later into the light, two-piece split bamboo rods with guides and tips of agate or cornelian of the present day.

The twisted Cuttyhunk lines and easily-running multiplying reels were also invented for this bass fishing purpose. The strong tackle used for tarpon and tuna fishing has been developed until we now have reels that will stand the heaviest strain of a thousand pound tuna, and will hold a thousand feet of twisted linen line that will not break at sixty pounds of dead pull.

The striped bass were very plentiful along the Atlantic coast in the sixties and seventies, and are still to be found from Cape Cod to Chesapeake Bay and even farther south where they are known as rockfish.

In the sixties many clubs were formed at Newport, West Island, Block Island and

STRIPED BASS IN PACIFIC

Montauk, and at Cattyhunk and Pasque Islands where the waters were chummed with menhaden and where the members fished from the rocks and from iron stands built on the rocky points that jut out into the sea. Many fish were also taken from rowboats, the angler casting his bait into the white waters of the breaking surf around rocks and points where these fish were known to trade.

There is some skill required in casting, for when the bait is started on its flight through the air the reel pays out the line much faster than the weight of the bait can carry it off, and if not checked by the thumb, the line overruns.

When casting, the rod is thrown back with about two and a half feet of line for play; with a rather slow movement of the tip forward the bait describing a graceful curve drops noiselessly into the water.

Many large fish were taken in this manner every season. For example, Mr. Thomas

Winans and his nephew took in three months' fishing from stands built for the purpose on the rocks in front of his house at Newport, Rhode Island, 124 striped bass weighing 2,921 pounds, an average of over twenty-three pounds, the largest being a fish of sixty pounds. I have known my father, the late George Griswold, who was a keen fisherman, to bring home before breakfast, four fish that would weigh over fifty pounds each, but that was in the sixties at New London where no bass are now to be found.

Last season (1914) I heard of but three large fish taken in the waters off the Elizabeth Islands. They weighed 51, 52, and 63 pounds. The summer before but one large fish was reported.

The fishing clubs have been abandoned, the stands have been destroyed by the action of the sea, and the waters are no longer chummed or fished, for the large striped bass have become a tradition of the past. This has been caused by excessive net fish-

STRIPED BASS IN PACIFIC

ing, for the bass, being a migratory fish, has been and is still netted along the full length of the coast both going and coming as well as when in southern waters, and the result has been fatal.

In late years a new form of fishing has been introduced and special tackle invented for the purpose. This is known as beach or surf fishing. The fisherman clad in long rubber wading-boots, using a specially long and springy rod, casts his bait and sinker out beyond the combers. About two feet above the sinker, which weighs from three to five ounces, a leader of triple or quadruple gut is fastened to the line with a double-action swivel. In this manner some good fish are still taken every spring and autumn along the New Jersey and Long Island beaches, and many small bass, known as "school bass," are caught trolling in the estuaries and along the tide-rips.

In 1875 an attempt was made to transfer the striped bass to the waters of the Pacific

Coast. One hundred and fifty fingerlings were safely transported across the continent and liberated in a slough that emptied into San Francisco Bay. This was repeated in 1880 when two hundred and fifty fingerlings were liberated in the same manner. The first fish taken in the nets were two fish of seven pounds captured in 1880. From this time the fish, being protected by good laws, increased amazingly both in numbers and in size.

In 1903 two million pounds of striped bass were sold in the markets of San Francisco and Oakland and the supply seemed inexhaustible.

A striped bass fishing club had been formed and although the members attempted to preserve the fish for the good sport they afforded they failed, for the State Fishing Commission was persuaded by the public fishermen and the fish dealers to remove all restrictions.

As often happens in such cases the com-



MR. JAMES R. STEERS AND STRIPED BASS

STRIPED BASS IN PACIFIC

mission discovered its mistake too late, for in a few years' time few fish remained.

In later years they have renewed the restrictions by closing some of the bay sloughs to fishermen and not allowing any fish to be taken under three pounds in weight, and the fish are now increasing and afford good sport.

In 1903 one and a quarter cents a pound was the price in the market but it has risen so that twenty cents a pound is now often paid, for it took some years to establish the fact that the striped bass as a table fish compares favorably with the salmon and the other seafish of the Pacific Ocean.

The largest fish taken that I have record of weighed $62\frac{1}{2}$ pounds and I have heard of several fish that weighed over fifty pounds.

The method of fishing for them is trolling as they seem to be found only in the bay and in the sloughs and rivers that empty into the bay.

Whereas the baits used on the Atlantic Coast are menhaden, lobster, eels, shedder crabs, and bloodworms, on the Pacific Coast the fish are taken on the Wilson spoon, which was invented for this purpose, and with crab, herring, and a local fish called bull-head.

Little seems to be known about the habits of these transplanted fish. They seem to remain in the same waters the year around, yet most of the large fish are taken in November and December.

It is the most interesting case of the transplanting of seafish that I know of and if the restrictions had not been removed the striped bass fishing in San Francisco Bay would be justly celebrated and there would have been no scarcity of striped bass in the fish markets of California.

XV

THE AMERICAN SHAD

XV

THE AMERICAN SHAD

(*Alosa sapidissima*)

MANY epicures believe that an American shad, freshly taken from a nearby river and "planked," is the best of all American fishes.

There was a time in early Colonial days when the shad was not esteemed as a food-fish, owing to the fact that a similar fish was found in the waters of Great Britain, France, and Spain where it was considered a poor man's fish of inferior quality.

This fish, the allis shad, *Clupea alosa*, is still found in those waters. It spawns in the Severn and used to do so in the Thames.

It is also found in many rivers that empty into the Mediterranean and the Baltic, as well as into the Black and Caspian seas.

It was not long before the quality of the American fish was appreciated, for we are

told that at the end of the XVIII Century the fishermen on the Connecticut River refused to sell their shad unless a certain number of salmon were purchased as well.

The shad is so familiar to us now that it might be supposed that those who study fish would have discovered all there is to be known about it, but such is not the case.

The habits of the fish when ascending the rivers, their methods of spawning, the incubation of the eggs and the period thereof, the habits and growth of the young, and the life of the mature fish in fresh water are all familiar, but when the fish return to salt water they are, like the salmon, lost to the ken of man.

It used to be supposed that they wintered in the Gulf of Mexico where there is abundant food and that in January they journeyed slowly northward, dropping detachments at the mouths of various rivers. It has been discovered that this migration does not take place.

THE AMERICAN SHAD

In the first place it was noticed that shad often appear in Northern waters before they are found in those of the lower latitude. It was further discovered that when man began the artificial propagation of the shad in a certain river, that stream, and no other, was benefited.

The theory now is that when the shad leave the rivers they dwell somewhere in the depths of the ocean opposite and not far distant from the river in which they were hatched, and that they do not begin to ascend the rivers in the spring before the temperature of the river water approaches 60 degrees.

It is not generally known that for several years some hundreds of barrels of fine shad have been netted in the deep waters adjacent to Mount Desert Rock, Maine, in the month of August. These fish are taken to Northwest Harbor and shipped to the Boston market.

This would lead one to believe that the

SOME FISH AND SOME FISHING

theory that these fish dwell in the deep waters off the coast when they leave the rivers is a correct one.

In the early history of this country nearly every river along the Atlantic coast was invaded by immense schools, but through increasing fishing and owing to the obstructions in some rivers, the supply gradually diminished until some thirty years ago the Federal and State governments began hatching the shad artificially, with such success that the supply of fish has kept pace with the ever-increasing demand.

Shad are found along our Atlantic coast from Florida to Newfoundland and are most abundant from North Carolina to Long Island.

The chief shad-rivers are the Potomac, Susquehanna, and Delaware and, although the fish has received as many vernacular names as there are rivers that it enters, it is always the same fish.

The hickory shad is found in the waters

THE AMERICAN SHAD

of Chesapeake Bay and seldom weighs more than three pounds.

The Alabama shad, found in the Gulf of Mexico about Pensacola, is a small variety and, like the hickory, is inferior food to the common shad.

The alewife, wall-eyed herring, or gaspereau, is also a near relative of the shad.

During the spawning season the fish are very susceptible to cold. If after migration begins there is a heavy fall of snow the melting of which lowers the river temperature, there is an immediate decrease in the catch of the fishermen. It is probable that at first maturity the shad returns to the river whence it originated but that after that it may join the spawning shoals of other rivers.

The van of the spring run consists chiefly of bucks or male shad, and soon after the roes or females arrive with a liberal admixture of belated bucks.

The spawning grounds of the shad are at the headwaters of the main river. If the

SOME FISH AND SOME FISHING

water temperature is suitable it takes from 6 to 10 days for hatching. The eggs are small and semi-buoyant. The fish are very prolific. A single roe has been known to furnish 150,000 eggs.

There is an appalling loss of eggs and young fish, as they are devoured by numerous enemies, and it is estimated that of all the young fish hatched not more than a dozen from any pair of mature fish reach the ocean in safety.

To counteract this wastage, artificial propagation was undertaken with success. In the spring of 1900, 241,050,000 young shad were planted in the rivers of the Atlantic coast.

The shad is the most valuable river fish of the eastern coast. The Chinook salmon and the cod are the only fish of this continent that exceed it in value. In 1896 the catch numbered 13,145,395 fish weighing 50,847,967 pounds and worth \$1,656,580 to the fishermen.

THE AMERICAN SHAD

At various times between 1871 and 1880 shad fry were planted in the Sacramento River in California and in the Columbia River. They have thrived so well that they are now to be found from San Diego to Fort Wrangle, a distance of 2,000 miles, and are most abundant in the markets of San Francisco.

The shad cannot be rightly called a game fish, yet it has been taken with an artificial fly. Published statements of such catches are often made but the fish captured generally prove to be the hickory shad or the alewife, both of which will take artificial flies as well as bait.

There are conditions where the true shad will rise to a fly. Chief among them is where there is an obstruction in the river above which it is impossible for them to pass. On reaching such an obstruction they swim frantically about and seem to take the lure in savage desperation.

In the early summer it is the custom to

SOME FISH AND SOME FISHING

fish for them below Holyoke dam on the Connecticut River and at McCall's Ferry dam on the Susquehanna, but the fish are tender-mouthed and not very game.

XVI

THE WEIGHT OF GAME FISH

XVI

THE WEIGHT OF GAME FISH

Tarpon

(*Megalops atlanticus*)

MR. WILLIAM H. WOOD, the pioneer of tarpon fishing, who in 1885 landed the first tarpon, was the originator of the formula for estimating the weight of a tarpon when first taken from the water.

$$\frac{\text{Girth}^2 \times \text{length}}{800} = \text{weight}$$

This formula gives the approximate weight of almost every kind of fish of no matter what shape or size, excepting the sunfish (*Mola*).

Probably not more than twelve tarpon have been taken that weighed 200 pounds or more.

The record fish for an amateur in Florida is still, as far as I know, Edward Vom Hofe's tarpon taken at Captiva Pass on April 30th, 1898, weighing 210 pounds and measuring 6 feet 11 inches in length and 45 inches in girth.

My best fish measured 7 feet 2 inches but, being very thin, weighed only 187 pounds.

Doctor Howe is said to have landed a tarpon at Tampico, Mexico, that tipped the scales at 223 pounds.

I saw a tarpon at Miami, Florida, on May 17th, 1904, that had been taken near Tea Table by Charlie Thompson, a professional fisherman, and was told it weighed 224 pounds.

The tarpon is an elusive fish yet at times great scores have been made.

Mr. L. C. Murphy took 25 tarpon in one day's fishing at Aransas Pass, and Mr. B. W. Crowinshield accomplished a like feat at Boca Grande.

THE WEIGHT OF GAME FISH

On one of my trips to Cuba I fished the flood tides for three consecutive days and "jumped" 54 tarpon, and on another occasion played 14 small fish in one hour's fishing.

Mr. and Mrs. Magill, on a cruise along the west coast of Florida in the spring of 1915, captured 176 tarpon that weighed 16,377 pounds. The heaviest fish weighed 196½ pounds, eleven weighed over 180 each, and forty over 150 pounds. This is the most extraordinary fishing I ever heard of.

I find that in the long run the fish will average 100 pounds.

There were 785 tarpon weighed at Useppa Island in 1917 and but 23 of them were 150 pounds or more in weight.

It is now customary to free the hooked fish when possible, which is not always the most humane action, for a tired tarpon is easy prey for the ever-watchful piratical shark.

*The Striped Bass**(Roccus lineatus)*

THE striped bass have almost disappeared as game fish. Being migratory fish and traveling in schools, they have been so depleted by excessive netting that it is now difficult to obtain large specimens.

Jordan relates that: "At one haul of the net in Albemarle Sound 820 bass weighing 37,000 pounds were taken. Among them were many of 65 pounds, many of 85, and a few of 90 pounds."

The largest striped bass of authentic record that I personally know of, taken with rod and reel, weighed 70 pounds. This fish was taken by Mr. William Post at Graves Point, Newport, R. I., on July 5th, 1873. It was a long, thin, and emaciated fish that would have weighed 100 pounds in normal condition.

I am told that Mr. Charles Church landed

THE WEIGHT OF GAME FISH

a bass a few years since near Cutty Hunk that weighed 76 pounds.

The largest average catch of bass that I know of was ten fish 58, 56, 54, 53, 51, 49, 46, 42 and 36 pounds respectively—an average of $49\frac{1}{2}$ pounds. This catch was made at Graves Point by Mr. Seth Barton French and Mr. John Whipple on August 21st, 1881, between 6 and 11 A.M., in a heavy sea and on a rising tide.

Mr. Thomas Winans and his nephew took in three months' fishing, from stands built on the rocks in front of his house at Newport, 124 bass that weighed 2,921 pounds, the largest being a fish of 60 pounds.

Catches of bass weighing from 85 to over 100 pounds each are said to have been made in the Chesapeake seine-fishing.

The striped bass was unknown in the waters of the Pacific Ocean until 1875 when the first fingerlings were liberated in San Francisco Bay. They have prospered there. "Statistics gathered for 1900 show 1,251,-

000 pounds in the San Francisco markets in that year." The largest fish taken on rod and reel weighed 62½ pounds.

The artificial propagation of the striped bass has never been a pronounced success owing to the difficulty of obtaining the ripe male fish.

The Salmon

THE largest salmon I ever saw was a Tyee taken on a handline at Campbell River, Vancouver Island, weighing 72 pounds. The Tyee are said to weigh over 100 pounds, yet "no fish weighing 80 pounds had ever been brought to the cannery at Valdez Island."

I took 2,179 pounds of salmon in fifteen days in Discovery Strait at Campbell River, including 47 Tyee that averaged 43 pounds. The largest fish weighed 60 pounds.

In Canada the heaviest salmon I know of was the 54 pound fish taken in the Cascapedia River.

The Newfoundland record is a fish of 41½ pounds from the Codroy River in 1910.

Between 1880 and 1919, 25,824 salmon were taken by the members of the Ristigouche Salmon Club in Canada. These fish weighed 456,257 pounds and averaged

17.16 pounds. Three thousand seven hundred and six of them tipped the scales at over 25 pounds each.

The record British salmon was supposed to be the 84 pound fish taken from the Tay, but a few years ago the Scottish Fisheries Board expert reported that "an illicitly caught salmon had been taken in the Forth that weighed 103 pounds." He explained that "the matter was kept secret because the possession of the fish was fraught with a certain amount of danger to the captors."

THE WEIGHT OF GAME FISH

Catalina Island Records

	POUNDS
Swordfish (<i>Xypias gladius</i>)	463
Spearfish or Marlin (<i>Tetrapturus mitsukurii</i>)	372
Tuna (<i>Thunnus thynnus</i>)	251
Giant Bass (<i>Stereoplepis gigas</i>) . .	493
Yellowtail (<i>Seriola dorsalis</i>)	60 $\frac{1}{2}$
White Sea Bass (<i>Cynoscion hippurus</i>)	51 $\frac{1}{4}$
Albacore (<i>Gerres alalunga</i>)	66 $\frac{1}{4}$

The greatest number of tuna taken in one day was Mr. Boschen's catch of 13 fish weighing 985 pounds.

My best day, with a plain reel without a drag, was 5 tuna that weighed 491 pounds.

Only 20 swordfish have been taken.

Atlantic Tuna

Mr. J. K. L. Ross landed a tuna at St. Ann's Bay, C. B., on August 28th, 1911, that weighed 680 pounds twenty-four hours later at Sydney. It measured 8 feet 10 inches in length by 6 feet 3 inches in girth.

Mr. L. D. Mitchell landed a tuna a few years later that weighed 710 pounds. This fish was taken near Medway, Nova Scotia.

XVII

SANTA CATALINA ISLAND

XVII

SANTA CATALINA ISLAND

THE fishing season of 1917 at Catalina Island was a most successful one. Great schools of tuna made their appearance and afforded much sport. Three hundred and sixty-two tuna were taken during the season and the largest fish weighed $136\frac{1}{4}$ pounds.

Mr. Boschen landed 13 fish weighing 985 pounds in one day's fishing.

Fishing with the assistance of a kite was thoroughly tested by two sportsmen who fished side by side for some weeks in the same boat. One trolled in the usual manner and the other used a kite when the wind served. The former did not have a single strike while the latter landed 33 tuna.

On light-tackle nine-thread line, the largest tuna taken weighed 66 pounds, but the greatest feat was performed by Mr. J. W. Jump, who landed a 57-pound tuna in 30

SOME FISH AND SOME FISHING
minutes with a six-ounce rod and a six-thread
line.

The swordfish record was broken by Mr. Parsons, who captured a swordfish weighing 422 pounds after a battle of over six hours. This record was broken later when Mr. Boschen brought a fish home that weighed 463 pounds. This fish succumbed after a fight that lasted but one hour and a half, which fact was explained by a post-mortem examination which showed that the bait had been gorged and that during the struggle the fish's heart had been torn by the hook which had caused an internal hemorrhage and death.

I visited San Clemente and was again greatly impressed by the agility of the spearfish.

Although they did not arrive off the island until late in September, they afforded great sport. There were seventy-two spearfish taken under Club Rules, sixteen fish being taken by one boat in four days' fishing.

TUNA CLUB HOUSE
Atalen





RECORD SWORDFISH
163 pounds
MR. W. C. BOSCHEN

Mr. Pollitz landed the largest spearfish of the season — 326 pounds. This fish jumped forty-eight times and fought for one hour and forty minutes.

I discovered that these high and lofty jumping fish take so much out of themselves by their exertions that if you can persuade your boatman to go to them after their acrobatic performance is over, they can then and there be safely gaffed. In this manner I landed a fish that weighed 180 pounds in twenty minutes. This fish had jumped thirty-five times and was exhausted.

There were several spearfish taken by Mr. Jump on light tackle, a nine-thread line and a six-ounce tip; the heaviest fish weighed 185 pounds.

It is a strange fact that sea-fish fight less and lead more readily on light tackle than if you fight them hard with heavy tackle. The harder you fight them, the harder they seem to fight back.

The chief trouble with light tackle for

spearfish is to induce the boatman to follow the fish so that the line from the fish to the rod leads straight, and not by cutting corners attempt to gain on the spearfish, for in the latter course the line bags and will not stand the strain of being pulled sideways through the water.

It is difficult to persuade the boatman in the excitement of the moment to manœuvre his launch in the opposite direction to that in which the fish is travelling, although it is the only way to straighten the line and remove the strain on the slack that is being pulled through the water faster than it can be reeled in.

Light tackle is all very well with a free-jumping fish, but one that is foul-hooked, seldom jumps and fights like a shark, in which case it becomes a difficult proposition for a light rod and line.

A success with light tackle depends on when and in what waters the fishing is done. At Catalina it is generally safe to decide



SPEARFISH OR MARLIN
179 and 132 pounds

what weight of fish you will fish for without being surprised by a mackerel shark or a fifty-pound amberjack, as often happens in Florida.

In the latter case light tackle would be of no more service than it would be at Catalina if one-hundred-and-fifty-pound tuna were taking freely.

The charm of fishing in the waters of the Channel Islands of California is the fact that the tuna and yellowtail run in schools of an average weight, and a fisherman may suit his tackle to the fish that are running at the time.

1918

THAT season was in some respects even better than that of 1917.

No swordfish (*Xiphias gladius*) were taken and few were seen.

One hundred and fifty-three spearfish (*Tetrapturus mitsukurii*) were weighed in.

Twelve weighed over 200 pounds each, the largest 328 pounds and the smallest 66 pounds.

Six hundred and thirty-nine tuna were landed, 19 of which weighed over 100 pounds each, while the largest fish tipped the scales at 149½ pounds.

Nineteen dolphin were brought in one day and the best day for yellowtail yielded 290 fish.

All these fish were either consumed at Avalon or sent to the market at San Pedro.

1919

THIS was a great tuna year. There were 911 tuna taken during the season, 42 of which were over 100 pounds in weight.

The heaviest fish weighed $152\frac{3}{4}$ pounds. Mr. James W. Jump broke the light tackle record by landing a tuna weighing $145\frac{1}{2}$ pounds.

No swordfish (*Xipias gladius*) were taken during the season.

One hundred and fourteen marlin or spearfish (*Tetrapturus mitsukurii*) were brought to the scales, 16 of which weighed over 200 pounds. The heaviest fish was taken by Mr. A. W. Hooper and weighed 298 pounds.

I was fortunate enough to land six spearfish in fifteen days that averaged $207\frac{1}{2}$ pounds.

1920

THERE were 548 tuna taken during the season, 89 of which were over 100 pounds in weight.

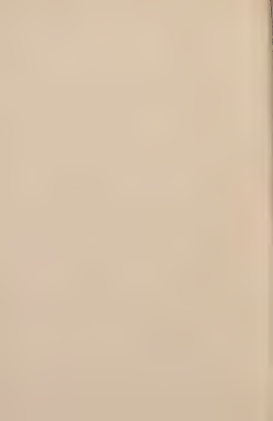
The heaviest fish weighed $156\frac{3}{4}$ pounds.

Three swordfish (*Xipias gladius*) were landed, the heaviest fish weighed 418 pounds.

160 marlin or spearfish (*Tetrapturus mitsukurii*) were brought to the scales, 6 weighed over 300 pounds and 22 over 200 pounds. Mr. J. A. Coxé landed the record marlin of 372 pounds.

XVIII

THE FISHES OF SOUTHERN
FLORIDA



XVIII
THE FISHES OF SOUTHERN
FLORIDA

THE Tarpon glides along serene
As though to polish his scales of sheen;
For no silver ever had such glint,
Not even coin fresh from the mint.
This royal, bright, and beauteous thing
Is sometimes called the Silver King.

The Sailfish with his fin so blue,
Jumps from the sea as though he flew,
He flits along from wave to wave
As though it were his life to save,
His dorsal fin with black spots is shot
And it closes neatly in a slot.

The Mackerel tribe is always Spanish,
The common kind they seem to banish,
But others of the breed are not taboo
Such as the Cero and the gay Wahoo.

SOME FISH AND SOME FISHING

The Kingfish mated with his striped relation
Has added Cero to the finny nation.

The Bluefish bold and a great fighter
Is found off shore to "Lignumviter."
A jumper, biter swift is he
That trades about from Key to Key.
They always seem to be in schools
With teeth as sharp as keen-edged tools.

The Jackfish and the Amberjacks
Are wide in girth with narrow backs,
They tug and pull to beat the band,
And when of size are hard to land.
They are poor eating, but not so
Their blood relation the Pompano.

The Barracouta, with teeth on jaws,
Is a pirate fish that breaks all laws;
When hooked he jumps into the air,
And fights by all foul means or fair.
As food he is not of the best
And is only eaten at Key West.

THE FISHES OF SOUTHERN FLORIDA

The Kingfish is a hungry thing
And ever ready at the bait to spring.
When once hooked he jumps clean out
And shows his tail and pointed snout.
The west wind is his best for biting,
The northern Kingfish is a Whiting.

The Redfish is the Channel bass
And is not found at reef or pass
From Gilbert's Bar to Romano,
For him the water must be just so.
His body is bronze, a coat of mail,
And there is a black spot on his tail.

The Sergeantfish is a salt sea pike.
His two stripes on both sides alike
Give him his title and his rank.
They're found in bayous near the bank,
In rivers and in many brooks;
They also bear the name of Snooks.

The Dolphin in the ocean spray
Is polka-dotted and in bright array;

SOME FISH AND SOME FISHING

In the warm waters he loves to roam,
And in the gulf stream makes his home.
When once on board his colours fade
And he becomes a piece of jade.

Bonefish play at seek and hide
Along sandbars on the new flood tide,
They show their tails when hunting fleas
And swim along with grace and ease.
Bonefish are shy and gentle biters,
But when once hooked are champion
fighters.

The Ladyfish and the Seatrout
Are to be caught if you hunt about.
In the Indian River they are still found
And in great schools did once abound,
But now they are not often seen,
Are few in number and far between.

The Groupers who on the bottom dwell
Quite undisturbed by the ocean swell
Are of three sorts, gray, brown and red,

THE FISHES OF SOUTHERN FLORIDA

Long-jawed with more mouth than head.
No sea cook can be ever prouder
Than when he serves one up as chowder.

The different Snappers which swim in droves
Are found by shore and near mangroves;
They are Muttonfish out on the reef,
At least that is my best belief.
The luscious oyster is their favorite food
But they snap at small fry when in the mood.

The Sawfish with his teeth on snout,
Is a brigand and a roustabout.
With hide as tough as leather skins,
Has on his back two dorsal fins.
He strikes with saw and it never matters,
What he can't eat he always scatters.

The Jewfish—giant of the fishes—
Is not a gourmet as to his dishes;
When hungry and when in the mood,
He is no stickler as to his food,

SOME FISH AND SOME FISHING

Hence the epithet of his funny calling,
For Jewfish is a name appalling.

The Shark is the very greatest thief
That ever swam along the reef;
He loafs along from hour to hour
To see what prey he may devour.
He swims about with dorsal out
And has a Pilot for a scout.

XIX

THE SEA FISH OF CALIFORNIA

XIX

THE SEA FISH OF CALIFORNIA

XIPIAS GLADIUS is a class alone
And the only swordfish that is known,
Yet 'tis Avalon's most dear wish
To confound him with the Spearfish.
It seems an insult to the Creator
As well as to the nomenclator.

His snout is flat just like a sword,
His dorsal fin stiff as a board;
Strong pectoral fins give him the power
To fight the fisherman hour by hour;
Though gaffed he is not yours as hoped
Until his tail is safely roped.

The Spearfish, gamest of the game,
Has also Marlin for a name,
His snout is round just like a spike,
His stripes are purple, all alike;

SOME FISH AND SOME FISHING

Beautiful in the sea is he,
As graceful as a fish can be.

When once hooked he jumps about,
Shakes his head and waves his snout;
He dances hornpipes on his tail,
And leaves the seafoam as his trail.
A jumper, fighter strong is he,
The king of game-fish of the sea.

The Tuna is a learned fish,
For schooling seems his fondest wish.
The Yellow-fin calls Japan his home,
The Blue-back in all seas does roam.
You can always tell them by their fins,
And as for speed, the blue one wins.

There was a time when they were bold,
And they would strike and take a hold
Of any bait that was trolled along,
But now they sing a different song;
The bait to a kite-string tied must be
And skimmed along the tumbling sea.

THE SEA FISH OF CALIFORNIA

Of different sizes and by the score
You see great schools of Albacore;
The Japs entice them with live bait
And hunt them early morn and late.
These fish are promptly cooked and canned
And shipped away throughout the land.

The Barracoutas of the Pacific
Are fishes that are quite specific.
They don't resemble in the least
Their so-called namesake in the East;
The Atlantic fish of the same name
Is somewhat larger and far more game.

The Yellowtail and the Rockbass
Are found near kelp and long seagrass;
The kelp to them is house and shelter
Where they retire, a-belter-skelter,
When chased by larger fish and Shark.
For there it's safe and cool and dark.

The Whitebass in the spring comes round.
At other times he is not found.
He fights upon the surface best,

SOME FISH AND SOME FISHING

Is full of life and full of zest;
In the south he is of great size
And to a trolling bait will rise.

The Giant Bass is no Hebrew,
But is oft confounded with the Jew.
One can always tell him by his scales,
And Jewfish have round fins and tails.
They both do grow to a great size—
The fins and tails will put you wise.

In the wide ocean called Pacific,
The Salmon tribe is so prolific
That they provide the State with mammon
That would be lost without the Salmon.
Tyee, Sockeye, Humpback, and Coho
Are of the family of Salmo.

The Sharks of many kinds do swarm
In the blue water that is so warm.
They swim along and show their fins,
Looking for trouble and full of sins;
They are the scavengers of the sea
And deserve no mercy from you or me.

XX

OBSERVATIONS ON A SALMON RIVER

XX

OBSERVATIONS ON A SALMON RIVER

ANGLING

THE charms of angling are anticipation and solitude. It takes much time and practice to become proficient, and you must be keen and quick and have great delicacy of touch to become a good angler. It cultivates quickness, self-control, and above all things, patience.

Angling is a sporting fight between you and the fish and, as no two families of fishes fight alike, you are matching your brains and cleverness against the ingenuity of the fish.

It also cultivates a habit of observation which is so necessary if one would enjoy life and nature, and it takes one to beautiful rivers at nature's most attractive season

SOME FISH AND SOME FISHING

when there is so much that is interesting to observe both in bird and in plant life.

The solitude on the Canadian rivers is broken by the pleasant sound of running waters, the note of a king-fisher or the drumming of a partridge, and the typical clinking sound of iron-shod canoe poles as a canoe is driven up stream.

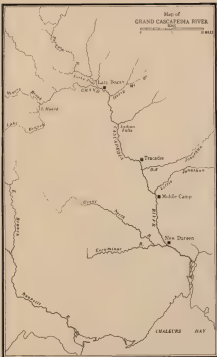
GAME FISH

From the standpoint of a fisherman I divide game fish into two classes namely, the forked-tailed and the square-tailed fishes.

The former travel great distances, swim rapidly, and are nearly all surface feeders and strong surface fighters.

The latter dwell on the bottom, are bottom feeders, and generally have a local habitat.

The forked tail has been given to the swordfish, tarpon, bonefish, bluefish, spearfish, dolphin, and all the pampano, herring, and mackerel tribes.

[illegible]

The tail is forked for the purpose of leaving a free space directly behind the axis of the body where the stream-lines following the sides of the moving fish converge. This means ease and speed in swimming. A round or square tail is a drag for it fills this space.

The whales and porpoises have horizontal forked tails which they move up and down, for they rise to the surface when swimming.

Among the square-tailed fish I classify the bass family, the snappers and groupers, and the salmon family.

The square-tailed fish are slow swimmers and seldom travel far. Those that do, such as the drumfish and the striped bass, proceed at a leisurely pace. The latter during their yearly pilgrimages travel and feed so close inshore that it has been possible by netting to almost destroy what was at one time one of the most numerous of our game fishes.

The forked-tail fish journey great dis-

tances and often at a high rate of speed, seeking food or a change of water temperature, and do not hibernate as do some of the square-tailed fish.

The square tail of the salmon is one proof, to my mind, that when they leave a river they do not journey far but dwell in the deep sea near the mouth of their summer home.

Although the seafood of the salmon when off the mouth of a river is known to be herring and the like, their square tails would lead one to believe that they are bottom feeders and that they feed leisurely and well, which would account for the fresh-run fish's superabundance of fat.

According to Alexander Agassiz the pelagic animals are very short-lived but they reproduce marvelously. Some of the Copepods, which are minute crustaceans, have no less than thirty generations in three weeks.

OBSERVATIONS ON A SALMON RIVER

As they are constantly dying there is a shower of food falling over the ocean floor which joins the food that comes from the littoral regions. It is stated that there is a thick broth of food over wide areas of sea bottom which can readily be obtained with very little effort on the part of the fishes.

The progress of large bodies of salmon in the sea, judged by the catches in nets at different stations, is said to be four or five miles a day. They only travel in the day-time; no salmon are taken in the nets at night.

After entering the river, these conditions are changed for then the salmon travel mostly by night.

Previous to entering the pure fresh water they remain for some time in the estuaries, moving in and out on the tides and becoming gradually acclimatized to the change from salt to fresh water.

A considerable portion of the salmon that spawn before the rivers freeze return to the

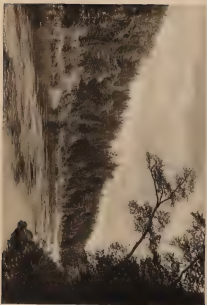
sea the same autumn, but a large number winter in the rivers and come down stream in the spring as kelts or "slinks."

The French Canadians call these fish *lingards*—a corruption of "long gars."

The kelts that descend the rivers in the autumn are dark in colour and slimy, whereas those that leave in the spring, *having molted*, are bright fish. This, at least, is the present day theory.

It is supposed that the grilse are four or five years old and that their rate of growth after that period is from four to six pounds a year.

A salmon was caught at West Baldwins half a mile from Channel Head, Newfoundland, by Louis Sheaves on June 5, 1919, with a silver tag attached to its dorsal fin marked A1124. The fish when caught measured 40 inches in length, 23 inches in girth and weighed 26 pounds. R. Mosdell, the station master at Port aux Basques, obtained the fin tag and submitted it to the



PUTINES POOL

OBSERVATIONS ON A SALMON RIVER

Game and Inland Fisheries Board for inquiry as to where the fish had been liberated.

On July 15 he received a message from the Game Board stating that the fish was liberated from the salmon hatchery at Margaree, Nova Scotia, November, 1917; at that time it measured 34 inches in length and weighed 12 pounds.

This dislodges the theory that salmon always frequent the same water yearly, and also shows a remarkable growth within the given period.

This fish in nineteen months grew in length 6 inches, being an average of almost an inch every three months, and gained an average of three-quarters of a pound in weight per month for the same period.

THE AGE OF SALMON

According to Malloch it is easy not only to tell the age of an Atlantic salmon by its scales but also to follow its journeyings and occupations through life.

As the rings on a cross-section of a tree show the tree's yearly growth, so do the rings on a salmon's scale determine the age of a salmon.

The scales of a parr hatched in March when a year old have sixteen rings, and thirty-two rings can be counted after the expiration of another twelve months.

Two months or so later the parr becomes a smolt and goes down to the sea and may return the following May or June as a grilse with fifty-two rings, more or less.

If the rings on a fish's scales number less than fifty-eight it is a grilse, if more than that number show it is a salmon.

All the grilse and salmon that enter a river are supposed to spawn and those that remain long in fresh water have the edges of their scales broken off. When the kelt-grilse and the kelt-salmon return to the sea and begin to feed, a ring forms around these broken parts and these rings increase in

OBSERVATIONS ON A SALMON RIVER

number according to the time the fish remain in the sea.

In the Grand Cascapedia River a grilse is seldom seen or taken. This may account for the great average size of the salmon in that river. These fish may pass their grilse term of life in the sea, where, with good food and without the fatigue of spawning, they grow in weight accordingly, and enter the river later on as full-fledged salmon. Few salmon are taken in the Grand Cascapedia under 20 pounds in weight, and it was there that Dr. S. Weir Mitchell took in 1896 40 salmon that averaged 28 pounds.

In order to determine the time the salmon remain in the sea it is necessary to count the rings from the broken or uneven lines outwards. No rings are formed on the scales in fresh water.

The great majority of salmon are said to spawn but once although some spawn twice or more often.

SOME FISH AND SOME FISHING

It is claimed that salmon, during the period of their stay in a river and after having fulfilled their mission, lose twenty-five per cent of their weight.

The very large salmon, those from forty to fifty pounds, are cock-fish, generally old bachelors, gourmets and gourmands that have remained in the sea where the food is good and plentiful rather than undertake the up-stream struggle with perhaps little or no food, and with domestic troubles awaiting them at their journey's end.

For example, the 61 pound cock-salmon taken in the Tay in Scotland on July 13th, 1902, proved by its scales to be 7 years and 2 months old, and the scales also showed that it was this salmon's first return from the sea.

It is claimed that as far as rivers are concerned the life of an Atlantic salmon is 8 years. No fish have been taken of a greater age.



JOE MARTIN POOL

OBSERVATIONS ON A SALMON RIVER

MODERN SALMON FISHING

By modern salmon fishing I mean the present-day form of fishing from a canoe on Canadian rivers, for in Scotland, where a man must wade or fish from the bank and is often obliged to cast a very long line, the modern light rods would be of poor service.

In canoe fishing the sport is made easy, for after a fish is hooked the canoe may be moved about and you are quickly placed below your fish, or should the fish take down stream you may follow him on his mad career.

In this form of fishing you seldom have to cast a fly more than twenty-five yards. The length and weight of a rod depend on the distance it is necessary to cast a fly, for after hooking a fish it is a very easy matter to end the struggle in short order if you understand handling fish, for a fresh run salmon, though active, is not a strong fighting fish for its weight.

Some of the old-time anglers still use

the English wooden rods of sixteen feet or more in length, for they maintain that they are superior to the modern light split bamboo grilse rod. Their theory is that the latter is too quick in action and loses many striking fish, which it should not do if the rod is handled with the light hand that it is not possible to employ with a heavy rod. I find the green-heart rod is superior in a strong wind, for it has more power.

The wooden rod, though more brutal when you first give the fish the butt, is not nearly so killing, for every fibre in the bamboo is alive and at work all the time.

The modern split bamboo grilse rods now in use are fourteen feet, more or less, in length and are easy to handle for they are well balanced and weigh from 16 to 24 ounces.

My advice to a beginner using these rods is to banish the idea that the salmon rod is a two-handed rod, and always to bear in mind the fact that the right arm and the rod are

OBSERVATIONS ON A SALMON RIVER

as one. No amount of energy applied to the rod by the left hand will communicate itself to the line. The left hand is employed as a help in holding the rod, in fact is simply a rod-rest.

By grasping the rod firmly with the right hand at the upper end of the cork handle, with the thumb along the rod, the energy of the right arm is communicated to the rod. You cannot use the full spring of the rod unless it is firmly held. This may not be necessary for a short cast but for a long line it is imperative.

After lifting the line from the water for the back cast a flip of the left thumb to the butt at the right moment is all that is necessary, the forward cast being made with the right hand only.

ANGLING FOR SALMON WITH A

"DOPED" FLY

I have for years been a great believer in the acute smelling powers of fish. These

powers I have often tested when seafishing.

If on a still day you see the dorsal fin of a leisurely swimming shark on the surface of the ocean, you may always inspire the shark with new life by pouring fresh fish blood into the sea. The shark will at once become alert and begin to hunt the blood-scent until he finally discovers its source.

Then again, when anchored and fishing for bonefish, after having distributed the crab-meat chum, you will often see a school of bonefish hunting the smell of the chum as a pack of hounds hunt the cold scent of a fox, quartering to the right and to the left until they eventually hit the line and find what they are looking for.

Knowing that trappers in the northern woods lead their prey to their baited traps with "charm-oil," I conceived the idea that fish might be enticed in a like manner.

This was difficult in seafishing as the friction caused by trolling a bait through the



INDIAN FALLS RAPIDS

water destroyed the odor of the "charm-oil," but in fly-fishing I found it quite simple.

My first attempt was when fishing on a salmon river in Canada. The river was low and the water quite clear. I had been fishing over a salmon of fair size that could readily be seen lying on the bottom close to a large stone.

After trying different flies as well as different sizes of flies with no result, I handed the rod to my canoeman, an old and very experienced fisherman, and told him to have a try. He used all his powers of persuasion to entice the fish but with no success.

As he handed me my rod I said: "Now I shall show you how to take that fish."

I anointed the fly he had been fishing with by placing a drop of "charm-oil" on the hackle of the fly. On my second cast I rose, hooked, and landed a 24-pound salmon. This was not chance for it happened on several occasions in a like manner, rising fish that would not look at an "un-doped" fly.

The last day on the river that season found me, after three days of heavy rain, stormbound at a camp up stream, with all the experts insisting that no fishing was possible.

The water had risen seven inches since eight o'clock in the morning, and three feet since the rain began, and it was still rising at one when we started down stream.

A heavy fog overhung the river and the water was of the colour and consistency of pea-soup, a combination of every adverse condition possible for sport.

I proposed stopping at a choice pool on the way down stream, for, I said, I wished to take a few fish home.

I was laughed at by the canoemen but, being more of a fisherman than an angler and having no prejudices, I insisted.

When we reached the pool we found the water very high and running strong. I could hear the small stones rolling along the bottom of the pool, and the partly sub-



CHARLIE VALLEY

OBSERVATIONS ON A SALMON RIVER

merged branches of the bushes on the banks were dancing back and forth as the current swept by.

The canoeeman said: "There ain't no fish in this pool, don't you hear the stones a-rolling? I replied that they must be somewhere about the pool as I saw no salmon on the bank and that fish were not known to climb trees.

The killig was dropped close to the bushes at the edge of the pool and, casting a well "doped" fly down stream, I rose, hooked, and landed three salmon of 12, 26 and 35 pounds, the only fish taken on the river that day.

The canoe could not be moved about owing to the rapid current and, as I was fishing with a light grilse rod, it was no easy matter to handle the two heavy fish.

Later on I discovered the following in "The Northwest Coast," a book by James G. Swan published in 1857. Writing of salmon fishing in Shoal Water Bay, Wash-

ington Territory, he says: "When the fish were shy or the Indians unsuccessful they would rub their hooks with the root of wild celery which has a very aromatic smell and is believed by the Indians to be very grateful to the salmon and sure to attract them. I have also seen the Indians at Chenook rub the celery root into their nets for the same purpose though I have never tried its effects and have some doubts about its value."

XXI

THE PACIFIC SALMON

XXI

THE PACIFIC SALMON

THE salmon of the Pacific is a genus that is very close to the Atlantic salmon, differing chiefly in the increased number of anal rays and in the fact that *they spawn but once and all die after spawning.*

When in the sea the salmon are supposed to dwell 20 to 40 miles off the mouth of their native river and return to spawn, being attracted by the cold river water.

There are five species of salmon in the Pacific.

The largest species is the Quinnot, chinook, tyee or king salmon (*Oncorhynchus tshawytscha*) which is found from Monterey Bay to northern Alaska and also in the Siberian rivers. This fish frequents large rivers and is taken in the Yukon at Dawson which is 1,500 miles from the sea.

They are said to attain a weight of over 100 pounds. They will average 25 pounds, many fish weighing over 40 pounds. The largest I have seen weighed 72 pounds.

It has never been explained why there is a heavy run of fish every fourth year. This heavy run occurs the year following leap year. For example in 1921 and again in 1925.

The fishermen claim that these fish remain in the sea for four years, and those that weigh about 20 pounds have returned sooner and are called springfish.

The very large fish, those over 50 pounds, may have remained away for more than four years or perhaps have been more fortunate in obtaining good food.

The Blueback or Sockeye salmon (*O. nerka*) forms the greater part of the canned salmon of the world and is found from southern Oregon to Alaska. This fish also has a heavy quadrennial run. They enter the Columbia and Fraser rivers in great

THE PACIFIC SALMON

numbers and journey over 1,000 miles from the sea. Their maximum weight is 15 pounds.

The Silver or Coho salmon (*O. kisutch*) resembles the Atlantic salmon for it has a brilliant silvery skin. It is the gamest fish of the lot and usually weighs from 3 to 8 pounds, although individuals have been taken that weighed over 20 pounds. They are found from Monterey Bay northward and also along the Asiatic coast, being common in Japan.

The Humpback salmon (*O. gorbusha*) reaches a weight of from 3 to 6 pounds and is the smallest of the genus. It is in very great abundance in the rivers of Alaska. The run of this fish is heavier in the odd than in the even years. This fish, unlike the other species, will not take a spoon or lure of any kind.

The Dog salmon (*O. keta*) is very abundant but the least valuable as a food fish. It is found from the Sacramento northward

and reaches a weight of 10 to 12 pounds.

The Steelhead (*Salmo gairdneri*) although called a salmon by the fisherman is a trout. This is a very game fish that takes a fly. Its maximum weight is said to be 20 pounds, although the usual run is from 2 to 6 pounds. In California the taking of this species is restricted to hook and line fishing.

The number of salmon in the Pacific is beyond all belief. Taking the year 1909 as an example we find the catch was very heavy owing to the quadrennial heavy run of sock-eye and chinook and the biennial run of humpback salmon.

The total catch of California was 12,141,937 pounds and of Alaska 175,934,000 pounds.

The total catch of the whole coast including British Columbia in 1909 is said to have been 365,336,482 pounds of salmon and steelhead trout, which returned the fishermen \$7,224,024, and in addition there were the millions of fish that died after spawning.

XXII

SALMON FISHING AT CAMPBELL
RIVER

XXII

SALMON FISHING AT CAMPBELL RIVER

THE Campbell River rises among the snow-capped mountains in the interior of Vancouver Island, B. C., about 270 miles north of Victoria, and flows southeast into Discovery Strait. About four miles from its mouth it tumbles over high falls into a cañon, and this is where the great "tyee" (chief) salmon go to spawn. Not only the tyee use these spawning-beds, but the hump-back and the beautiful coho salmon are also there in great numbers.

I journeyed six days to see if the reports of the wonderful fishing at the mouth of the Campbell River were true, and found the sport far better than I had hoped. One reason for the extraordinary fishing that season was the fact that the Government, by

heavy fines, had succeeded in driving away the Japanese poachers, who for several years openly defied the law, and poached the salmon with every known device from dynamite to illegal meshed nets.

Discovery Strait is a stretch of salt water, an arm of the Pacific ocean, which separates Vancouver and Valdez Islands, and is about two and one-half miles wide. If it were not for the great current and strong tides that flow through the straits it would remind one of a Swiss lake, for you are surrounded by hills beautifully wooded with splendid fir-trees, and snow mountains show plainly in the distance.

The best fishing is along the shore of Vancouver Island, a stretch of water one mile below and half a mile above the sand-bar at the mouth of the river. The current is so swift that it is almost impossible to fish except at the change of the tide or at half-tide. As the mode of fishing is trolling with a spoon, it is impossible to make enough

headway when the tide is running strong, especially about the time of the full moon. The natives fish with hand-lines, with heavy lead and small silver or copper spoons, the lead being about twenty feet away from the spoon. It is most interesting to watch the Indians standing in dugout canoes handling the fish, gently playing it, and finally clubbing it on the head, when the fish, having fought its battle, has succumbed. It is said that these fish return to the river to spawn after having left it four years before, and that, after spawning, they all perish. This seems hard to believe—hard to believe that a fish can grow to the size and acquire the strength that these fish do in so short a time; for I saw one giant, taken on a hand-line, that weighed seventy-two pounds at the cannery some hours after it was taken, and I killed a fish myself that weighed sixty pounds.

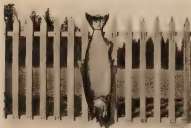
These fish came from the north, and are found off Kitmat, some four hundred miles

north of Campbell River early in May, but do not appear at the latter place before August 1.

Most of the amateur fishermen who were enjoying the sport when I was there were sportsmen from England, on their way to Cassiar after big game, who had stopped en route in the hope of taking a fifty-pound salmon. They had every possible kind of rod and tackle, most of it better adapted to fly-fishing than to sea-fishing, for this is sea-fishing pure and simple. I fished with a light striped-bass rod, a Cuttyhunk line, and with three ounces of lead, seven feet from the spoon. The lead is necessary, owing to the strong current, and does not seem to bother the fish, for they are very quick and have great strength. If you give them the butt after their first grand rush, they will generally jump three feet into the air. If you fish with a fly-rod, they never show, and are apt to take all your line before you can stop them. The light-tackle fishermen



SALMON, TOTAL WEIGHT, 212 POUNDS



TYEE SALMON, 60 POUNDS

Length 47 inches, girth 32 inches

$$\frac{\text{Girth} \times \text{length}}{800} = \text{weight}$$

SALMON FISHING AT CAMPBELL RIVER

spend most of their time repairing outfits and buying new lines and spoons.

The fish feed on small bright herring, which abound, and any bright spoon seems to attract them when feeding. The coho salmon, which run from five to ten pounds in weight, are at times very plentiful. The professional fishermen take as many as seventy in a day's fishing, and the cannery on Valdez Island pays ten cents apiece for the fish. For the tyee salmon they allow one cent a pound. I saw two coho salmon taken with a fly in the open sea, fish of about eight pounds in weight; but as the fish are moving you might cast all day without rising one.

I took the following fish in fifteen days:

August 1: 60 pounds, 48 pounds, 46 pounds.

August 2: 49½ pounds, 52½ pounds, 15 pounds, 50 pounds, 46 pounds.

August 3: 40 pounds.

August 4: 45 pounds, 45 pounds, 42 pounds, 42 pounds, 40 pounds, 46 pounds, 47 pounds, 12 pounds.

August 5: 45 pounds, 35 pounds, 30 pounds, 42 pounds.

SOME FISH AND SOME FISHING

August 6: 42 pounds, 44 pounds, 35 pounds, 21 pounds.

August 7: 46 pounds, 40½ pounds, 41 pounds, 17 pounds.

August 8: 20 pounds, 44 pounds.

August 9: 43 pounds, 38 pounds.

August 11: 32 pounds, 46 pounds, 47 pounds, 48 pounds.

August 10: 29 pounds, 32 pounds, 35 pounds.

August 12: 53 pounds, 41 pounds, 41 pounds, 44½ pounds, 33 pounds.

August 13: 53 pounds. (High wind and rough water.)

August 14: ———

August 15: 51½ pounds, 40 pounds, 40 pounds, 37 pounds, 36 pounds, 35 pounds, 34 pounds.

Forty-seven tyeo, average, 43 pounds; 5 spring fish, about 20 pounds each; 45 coho salmon. Total weight, 2179 pounds.

XXIII

THE KETCH KONA

XXIII

THE KETCH KONA

THE ketch Kona was designed for me by Commodore R. M. Munroe for the purpose of tarpon fishing in the rivers of Cuba.

She was built in Baltimore and is very strongly constructed of wood and is coppered.

Kona is 56 feet 6 inches on the water-line and 17 feet beam, and has a centre-board and a Craig gasoline engine of 25 horsepower.

Her draft is but four feet, for, although the rivers of Cuba are deep, there is a bar at the mouth of almost every river on which there is generally not much more than four feet of water at high tide.

The career of this little vessel is probably unique for in eight years she has sailed 38,917 sea miles. She has weathered the

dreaded Cape Sable, Nova Scotia, eight times and has passed Cape Sable, Florida, even more often. She has rounded the inhospitable Cape San Antonio at the west end of Cuba fourteen times, and has made the voyage between New York and Key West eleven times.

She has also been to Antilla at the eastern end of Cuba, as far south as the Isle of Pines, and as far north as the Bay of Islands, Newfoundland—a record which I do not believe has ever been duplicated by a yacht of her size.

In the summer of 1909 she sailed from Baltimore to Bar Harbor, from there to Halifax, and to Canso, through the Bras d'Or lakes to Sidney, Cape Breton Island, and returned to New York by the same route.

In October of that year she sailed from New York for Key West, around the west end of Cuba to Batabano and the Isle of Pines. After cruising along the south coast of Cuba we returned to Key West. We were



BOAT

THE KETCH KONA

close hauled in a strong wind and heavy sea from Justias Key to Key West for 26 hours—180 miles. After cruising among the Keys she left for New York outside, sailing 1,063 miles from Miami to New York in 7 days, 18 hours, which is said to be a record.

In October, 1911, she left for Key West and continued on to Cienfuegos, Cuba. We cruised inside the reef along the south coast and returned to New York. In July we sailed for Dark Harbor, Maine, and later made Halifax, Port-aux-Basques, and Bay of Islands, Newfoundland, back to Port-aux-Basques, across to Sydney, through the Bras d'Or lakes, and returned to New York.

In 1912 she repeated her trip to Cienfuegos, Cuba, and return.

In 1913 she sailed for Cuba again, going as far as Cienfuegos, and returned to New York, and in July made a voyage as far east as Halifax, Nova Scotia, and back to New York.

In 1914 her trip was to the Isle of Pines, along the south coast of Cuba, and back to home waters.

In 1915, she returned to Cienfuegos, and on her journey north met with her first mishap, for she parted her weather shrouds in a heavy sea, sprung her mainmast, and had to return to Miami for a refit and a fresh start.

On the 9th of July at 9 P.M., when within sight of the lights of Bar Harbor, we were struck by a sudden storm "wind 70 miles an hour and heavy rain." We were driven out to sea, lost the jiggermast, and had to cut away the launch. We limped into Bar Harbor the following evening at five o'clock after a very bad night at sea. After refitting we cruised to Lockport, Nova Scotia, and back to New York.

Kona sailed in November, 1916, for Key West and from there to Antilla, Cuba. We cruised along the north coast, stopping at Nuevitas and Matanzas. Sailing for Key



KONA FROM ALOFT

THE KETCH KONA

West, we ran into a bad Norther and had to return to Cuba, but made Key West and Fort Myers, Florida, later on.

In 1917 we had a six weeks' cruise along the south coast of Cuba and back to Fort Myers where the yacht was laid up on account of the war.

During all these trips Kona was commanded by Captain Thomas Dahlberg, a deepsea sailorman who has great confidence in the little craft.

We were always on the hunt after fish and entered many rivers in Cuba looking for tarpon, with the result that we "jumped" and played 254 tarpon and took over 500 other large game fish.

SUMMARY

	<i>Sea miles</i>
1909-1910	6120
1910-1911	5071
1911-1912	6718
1912-1913	4559
1913-1914	5925
1914-1915	4442

SOME FISH AND SOME FISHING

1915-1916	4658
1917	1424
1918	760
1919	1548

40,225

Miles

XXIV

THE GULF STREAM

XXIV

THE GULF STREAM

THE Gulf Stream has always seemed to me to be one of the greatest phenomena of nature as well as one of its greatest blessings.

I have fished along its edge for many winters and it has never ceased to be of consuming mystery and interest.

The beauty of its waters so easily distinguishable from the surrounding sea, its incessant flow in the one direction, the curious plant and fish life that it brings from the tropics and the warmth and life-giving properties that it distributes so generously among the Keys of Florida always inspire me with wonder.

Most people have vague and strange ideas as to the cause of this ever-moving stream. They do not seem to know that the Gulf Stream gets its initial impetus from

SOME FISH AND SOME FISHING

the joining of the north and south equatorial currents before rushing into the Gulf of Mexico through the Yucatan Channel.

These currents, greatly accelerated by the trade winds, sweep across the Atlantic Ocean from east to west.

The Northern Current comes from the coast of Spain and crosses the ocean in about 15 degrees north latitude, passing through the Windward Islands north of Martinique.

The South Equatorial Current comes from Africa and flows westward just south of the equator until it reaches the coast of Brazil. Here it divides, one part going south to the River Plate, the other traveling northward, picking up the warm waters that flow from the Amazon and the Orinoco and turning westward just north of the Island of Trinidad where it joins forces with the Northern Equatorial current for the grand rush through the Yucatan Channel. Here it attains a velocity of from 1 to 3 knots.

The Yucatan Channel which divides Cuba

THE GULF STREAM

from Yucatan, Mexico, is about one hundred miles wide and has a depth of 1,200 fathoms.

The first obstacle the stream encounters is the so-called Sigsbee Deep in the middle of the Gulf of Mexico. Here the water is 2,000 fathoms deep and being dense and cold it turns the current toward the Mexican coast. When it encounters the 100 fathom curve of the shore line, it circles first northward and then eastward toward the Straits of Florida.

The Straits of Florida are but little over ninety miles wide and have a depth of but 350 fathoms. Here the congestion of the waters forces the stream along at an increasing pace, carrying with it great quantities of gulf-weed brought from the islands of the Caribbean.

The maximum speed of the Gulf Stream is nearly 4 knots.

Turning northward it receives a fresh impetus by plunging into deep water over

the natural dam of Fowey Rocks at the northern end of the Florida Reef.

There is a counter-current in shore which causes much silting and the shifting of the beaches along the gulf coast and also along the east coast of Florida.

Off Cape Carnaveral the stream is forty miles off shore and thirty miles wide. The Gulf Stream follows the 100 fathom contour line of the coast until it reaches Cape Hatteras, where meeting the so-called Cold Wall or Labrador Current it turns almost due east.

As it passes New York it is about one hundred and twenty miles off shore, more or less according to the prevalence of westerly or easterly gales.

The Gulf Stream retains its identity until it reaches a point two hundred miles south-southeast of Cape Race, Newfoundland, where it divides into two currents.

The Northeast Current or Drift flows toward the British Isles. The other half,

THE GULF STREAM

the East Current, travels to the Bay of Biscay where it turns northward and, known as the Runnell Current, tempers the waters of the Channel Islands off the Coast of France.

THE END

